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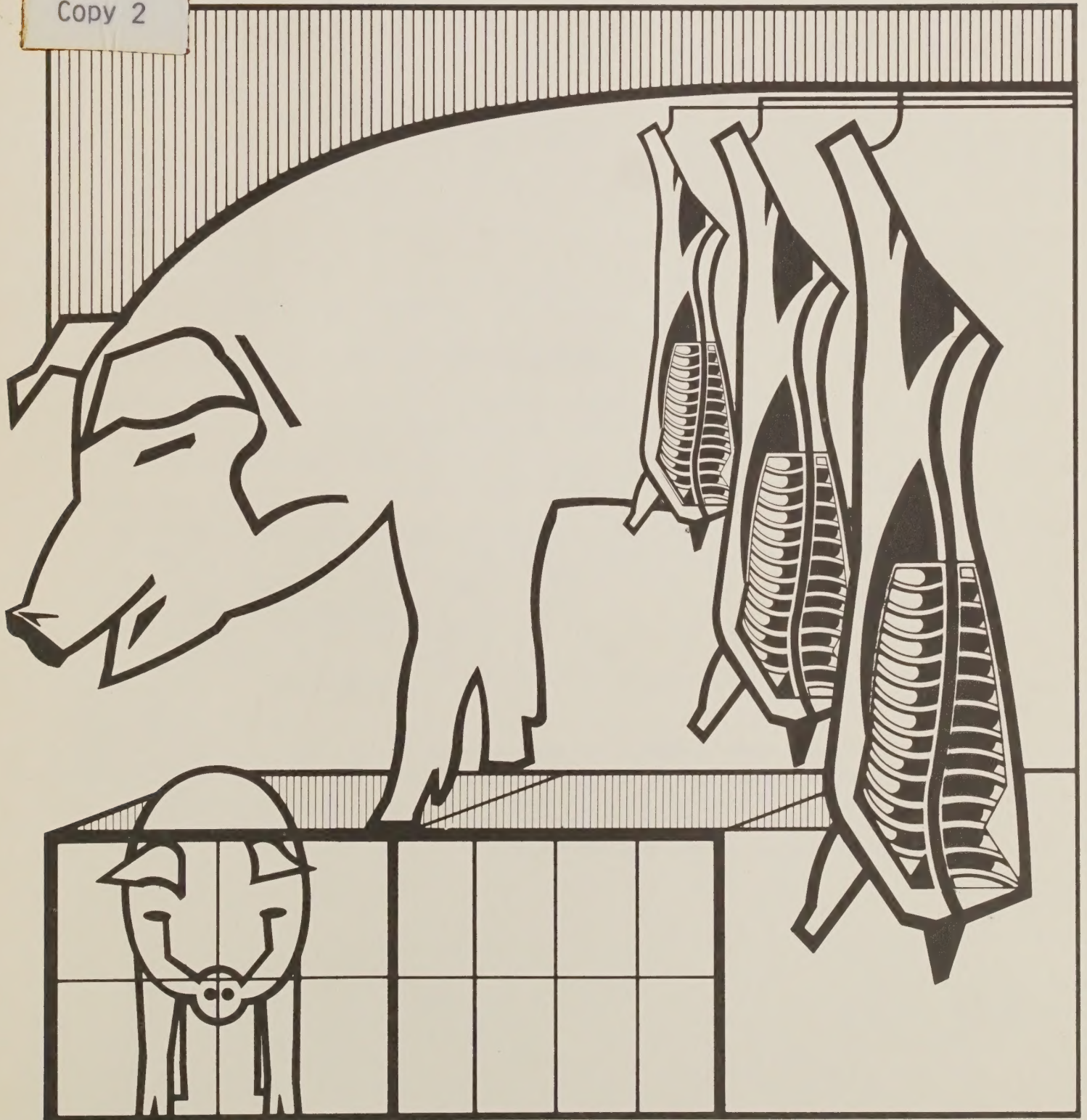
# Grade and Yield Marketing of Hogs

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### ACKNOWLEDGMENTS

This report was prepared by staff of the Packers and Stockyards Administration, U.S. Department of Agriculture.

Kenneth Stricklin, Director, Packer and Poultry Division, was directly responsible for the investigation, the principal source of information for the study. Messrs. Tom Morris, Kent Armstrong, Tom Garrison, Ron Ellis, and Keith Ingram had primary responsibility for the analysis and preparation of the report. Dr. Roger E. Schneider and Mr. John Sheedy of the Industry Analysis Staff contributed materially to preparation of the report.

The study was made possible by the voluntary cooperation of hog slaughter firms, which made available data on market hog procurement in 1981 and 1982. These cooperating firms operated 20 major slaughter plants in the primary hog production and slaughter region of the United States.

## GRADE AND YIELD MARKETING OF HOGS

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## SUMMARY AND CONCLUSIONS

The percentage of market hogs sold on a grade and yield basis is increasing each year. If a producer desires to sell hogs on this basis, he should keep in mind he is actually selling carcasses and not live hogs. Most grade and yield programs currently quote prices on a live weight basis rather than a carcass basis. Many items should be considered and compared in addition to base live price differences. If a seller does not have knowledge of all the variables that make up the final price, comparing the base live price among firms can be misleading when selling on a grade and yield basis because the higher base live price may not actually result in the highest carcass price.

Current packer grade and yield programs utilize arbitrarily established standards for grade and yield procurement which result in confusing and misleading information for producer-sellers. These standards differ widely among plants.

The practice of assigning carcass weights to live weight ranges using low standard yields does not accurately reflect true live weights of the hogs. This makes it difficult for the producer to know the most desirable weight to sell hogs. When packers assign live weight ranges for carcass weight purchases, the settlement reports show incorrect information. The true live weight range is not known because packers do not weigh live hogs individually.

Grade standards and the amounts of grade adjustments are not adequately communicated to the seller prior to the sale. Without the seller knowing the grade standards, the usefulness of the premium and discount amounts is greatly diminished. Sellers may have misconceptions concerning grade premiums if they feel a base hog approximates an average hog.

The yield gain shown on the settlement report is a meaningless figure and has the potential to mislead the seller. This occurs if sellers perceive the yield gain as being an amount above the amount for the average hog. This perception may result from using the term "gain," since it is commonly thought of as an extra or a benefit. Generally, if packers promote this perception, they are deceiving the seller, since most firms set their standard yields at levels below the yields of the average hog.

Most firms pay for lost identity carcasses based on average results of the other carcasses in the lot and generally don't make the seller aware of this modification or the number of carcasses involved.

In order to make a more intelligent marketing decision, the seller should obtain and compare all relevant information from packers in the marketing area. The following information should be obtained from each packer in comparing grade and yield programs:

1. Base Carcass Prices for Relevant Weight Ranges
2. Grade Premium and Discount Schedule for Relevant Weight Ranges
3. Grade Standards for Relevant Weight Ranges
4. Payment for Trimmed Carcasses
5. Payment for Lost Identity Carcasses
6. Payment for Condemned Carcasses

Since the above items are relevant to the actual settlement, packers should readily make this information available.

The elimination of live weight ranges, standard yields, and base live prices in describing grade and yield programs and reporting results would greatly simplify marketing. In addition, comparable quality grade standards within the industry would eliminate much of the difficulty the seller may have when comparing grade and yield programs.







## GRADE AND YIELD MARKETING OF HOGS

### INTRODUCTION

In the early 1980's, national producer groups expressed concern over the lack of comparability in packers' grade and yield programs and the lack of incentives for continued efforts to improve the overall quality of market hogs.

During 1982, the Packers and Stockyards Administration conducted an extensive review of the procurement programs of major hog slaughterers. The purpose was to analyze current grade and yield marketing systems and to determine their differences and the effect these differences might have on the producer's marketing decisions and dollar returns.

The review included 20 hog slaughtering plants operated by 12 different firms. These 20 plants were located in the States of Iowa (7 plants), Minnesota (3 plants), Nebraska (2 plants), Kansas, South Dakota, Wisconsin, Missouri, Tennessee, Illinois, Indiana, and Ohio (1 plant each). As the maps on page 2 illustrate, these states represent the major hog marketing and slaughter regions of the United States.

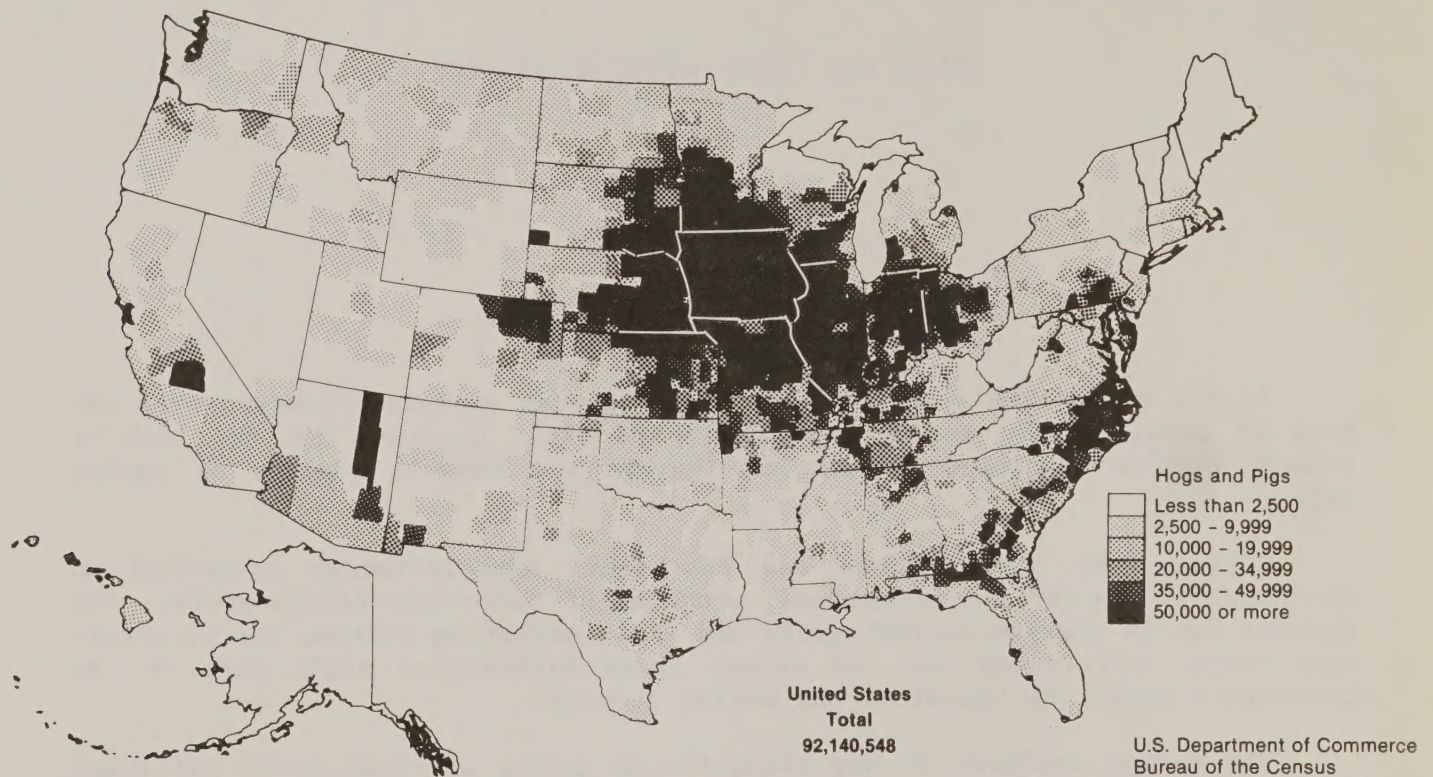
Detailed information generally was obtained on all barrows and gilts slaughtered by the 20 plants for 2 weeks in October 1981, and 1 week each in February and March 1982. All numbers and percentages in this report are based on the information obtained for this 4-week period. Lots with five head or less were not considered. The 20 plants slaughtered over 1.5 million barrows and gilts during these periods, which represented over 23 percent of all barrows and gilts slaughtered by federally inspected slaughtering plants in the United States during the same period. Overall, the 20 plants purchased 32 percent on a carcass weight or carcass grade and yield basis, and 68 percent on a live weight basis. For individual plants, percentages for grade and yield purchases ranged from a high of 82 percent to a low of 3 percent.

Packers generally promote grade and yield programs as an opportunity for the producer to receive monetary rewards for selling quality hogs. A long-term advantage promoted is the fact that sellers marketing hogs on a grade and yield basis normally receive an accounting of carcass data, which may be used to improve the quality of the herd.



## Hogs and Pigs Sold by County: 1978

(All Farms--County Unit Basis)



## Plants Slaughtering Over 500,000 Hogs Annually - 1982



U.S. Department of Agriculture  
Packers and Stockyard Administration



There are advantages to packers who purchase hogs on a grade and yield basis. Some of these advantages follow:

- a) Errors by the buyer are eliminated: (1) the packer does not pay for fill, (2) carcasses can be graded more accurately than live hogs, and (3) there is a perfect weight sort on the lot.
- b) Producers are encouraged, through premiums and discounts, to market the type of hogs the packer needs and wants.
- c) The packer does not normally pay for condemned hogs. Also, when carcasses with bruises must be trimmed on the kill floor, the seller stands the weight loss and in some cases an additional monetary discount.

Over the years packers have explained their grade and yield programs in terms of live weights and prices, and the programs have become extremely complicated in deriving a final value and accounting to the seller. Of more concern to this agency is the possible misinterpretation and/or deception that occurs because of the complexity of the accounting procedures.

Today many of the factors and calculations used on grade and yield accountings in converting a carcass back to a live weight are misleading to the seller.

The primary reasons given by sellers for not marketing their hogs on a grade and yield basis are the following:

- a) They are satisfied with the live marketing system.
- b) The payment to the seller is delayed until after the hogs have been slaughtered, weighed, and graded. Payment for live purchases is normally the day of sale.
- c) The seller stands the loss for any condemned carcasses and the weight loss on carcass trimming, plus a possible monetary discount.
- d) The seller has to sort closely, and sell hogs which weigh in the preferred weight range.
- e) The seller is uncertain as to whether he will receive more money selling hogs on a grade and yield basis.
- f) Grading is based upon visual and/or measured appraisal by an employee of the packer (company grader), and is not normally subject to verification by the seller.
- g) The criteria for determining carcass grades have not been standardized among packers so that sellers can readily compare grade and yield programs of different packers.

- h) The seller must depend upon the technical competence and integrity of the packer to maintain identity, proper handling, and accurate weighing and grading of the lot.

Hog producers were interviewed to determine their opinions of both live marketing and grade and yield marketing of hogs. Some of their comments and misconceptions on grade and yield marketing include:

- 1) Base Live Price - Most producers felt the base live price is the most important factor when comparing grade and yield programs of packers.

FACT: The base live price is only a starting point in determining carcass price. The highest base live price may not result in the highest carcass price.

- 2) Standard Yield - A majority of the producers thought the standard yield was an average yield of all hogs marketed.

FACT: Standard yield is an assigned percentage used by the packer which does not represent the yield of an average hog. The actual yield exceeded the standard yield 92 percent of the time for grade and yield lots.

- 3) Grades - Most producers felt the criteria used by packers to determine carcass grades are somewhat similar.

FACT: The criteria vary considerably and the number of carcasses assigned into the upper grades varies dramatically.

- 4) Yield Gain - Many hog producers thought yield gain (or similar language on the grade and yield settlement report) actually put more dollars in their pocket.

FACT: Yield gain is not an additional premium to the grade and yield seller. It is a dollar amount difference between the actual yield and the standard yield of the lot. Since the standard yield is a predetermined figure and the actual yield is the result of using the actual hot weights, the "yield gain" computation is meaningless.

- 5) Carcass Weight Assignment - Nearly all producers interviewed had hogs on their grade and yield settlement report placed in a heavier live weight range than they estimated any of their hogs actually weighed.

FACT: Due to the use of low standard yields, it is possible for a hog with an actual live weight of 235 pounds to be accounted for on the settlement report as a 240- to 250-pound hog.

- 6) Lost Carcass Identity - Most of the producers did not realize that the identity of some carcasses is lost. Many of the producers who knew of the lost identity did not understand how payment was determined.



FACT: The identity of some carcasses is lost due to tattoo numbers which are not legible or are misread. Most packers pay the seller by using the average weight and average grade of the hogs in the lot, but few settlement reports show this.

- 7) Shrink - Some producers interviewed take their hogs off feed and water the night prior to sale, primarily to increase the yield and presumably the value of their hogs.

FACT: Increasing yields in this manner increases the live per hundredweight amount, but does not increase the total payment for the hogs.

The above mentioned topics will be explained in more detail later in this report. The report will present a generalized description of a typical grade and yield program, discuss variability among packers' programs, and explain areas which could be confusing or misleading to sellers.

#### A TYPICAL GRADE AND YIELD PROGRAM

Before the typical grade and yield program is discussed, live weight purchasing is briefly described. Most plants determine a live market price on a daily basis by using available market information. This information includes current values of carcass cuts, evaluation of the previous day's competitive situation and anticipated live hog marketings. Consideration is also given to weather conditions, sales commitments, labor contract demands, and similar factors. As factors change, the market price may change throughout the day, depending on the individual plant. This market price, in most cases, represents a market hog weighing 210-240 pounds with an average yield and average grade. The packer will also establish a lower market price for hogs outside this weight range. These weight ranges are normally in 10-pound increments such as 200-209 or 201-210.

The packer-buyer evaluates each lot in terms of anticipated weights, grades, yield, condition, and the like. With these considerations in mind, the packer-buyer makes an offer for each lot. Generally, most sellers of live hogs receive the live market price established for the weight range in which the average weight of the lot occurs. Price adjustments appear to be made upward for top quality hogs and downward for less desirable weight and/or quality hogs, if recognized by the buyer.

The producer who sells on the basis of grade and yield is actually selling hogs on a carcass basis, not live hogs as described above. Grade and yield purchase programs vary among individual packers. In most cases, the differences are in terminology, standards, amounts for premiums or discounts, and the mechanics of calculating and reporting the results to the seller. Grade and yield programs use basic procedures and relationships which are generally the same for all packers. The following subsections describe procedures, standards, and parameters used by a typical plant in computing carcass prices.

### Grade and Yield Base Live Price

Each day the packer establishes a grade and yield base live price for a standard or base hog. This price is normally associated with the price for live purchases. The base live price for grade and yield hogs may be the same price or as much as a dollar lower than the price for live purchases. The price is for hogs in the packer's preferred or "base" weight ranges. The preferred weight range is usually a 30- or 31-pound range, such as 210-240.

Packers discount the grade and yield base live price for each 10-pound weight range above and below the plant's base weight range. Table 1 illustrates a typical schedule of live-weight range price discounts and the resulting schedule of grade and yield live prices by live-weight range. In this illustration, the plant has established live-weight ranges for hogs weighing between 180 and 280 pounds; the preferred or base-weight range is 210 to 240 pounds.

Table 1-- Typical schedule of grade and yield live prices by live-weight range

Live-weight range (pounds)	Price discount from base live price (\$/hundred pounds)	Grade and yield live price (\$/hundred pounds)
180 - 189	2.50	47.50
190 - 199	1.50	48.50
200 - 209	0.50	49.50
210 - 240 (Preferred or base weight range)	0	50.00 (Base Live price)
241 - 250	0.25	49.75
251 - 260	0.75	49.25
261 - 270	1.25	48.75
271 - 280	1.75	48.25

### Standard Yields by Weight Range

Standard live-to-car carcass weight yields, typically referred to as standard yields, are established by packers for each weight range and usually remain unchanged for an extended period of time. The standard yield typically increases as the live-weight range increases. Standard yields are established independently by each packer and generally differ from plant to plant or firm to firm.

The standard yield is used by the packer to convert the live-weight range to a carcass-weight range, and to convert the grade and yield live price to a base carcass price. Therefore, the choice of standard yields by the packer has a direct effect upon the plant's carcass prices.



### Conversion of Live-Weight Range to Carcass-Weight Range

Table 2 illustrates the procedure typically used in converting live-weight range to carcass-weight range. Multiplying the parameters of each live-weight range by its assigned standard yield results in the approximate carcass-weight range. However, due to rounding and changes in standard yields for various weight ranges, small differences may occur in the calculated versus the carcass-weight ranges assigned by the packer.

Table 2-- Conversion of plant live-weight range to plant carcass-weight range

(1) Live-weight range (pounds)	(2) Standard yield (percentage)	(3) Carcass-weight range 1/ (pounds)
180 - 189	72.3	130 - 137
190 - 199	72.7	138 - 145
200 - 209	72.8	146 - 152
210 - 240	73.0	153 - 175
241 - 250	73.2	176 - 183
251 - 260	73.5	184 - 191
261 - 270	73.7	192 - 199
271 - 280	73.9	200 - 207

1/ Column 1 times column 2.

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### Conversion of Grade and Yield Live Price to Carcass Price

The grade and yield live price for each weight range is converted to a base carcass price by dividing the live price for each weight range by the respective standard yield, as is illustrated in table 3. The base carcass price refers to the price for all weight ranges prior to adjustments for grades, whereas the base live price refers only to the price for the preferred weight range. The grade and yield live price is used only to establish the carcass price and to serve as a reference for the buyer and seller.

Some packers establish different standard yields for each 10-pound increment within the preferred weight range. When this occurs, only the portion of the range with the lowest standard yield receives the maximum carcass price. Seven of the plants had more than one standard yield for the preferred weight range. Table 4 illustrates how hogs within the preferred weight range may receive different base carcass prices although the base live price is the same.

Table 3-- Table of grade and yield weight ranges, standard yields, and base price relationships

(1)	(2)	(3)	(4)	(5)
Live-weight range (pounds)	Grade and yield live price (\$/hundred lbs.)	Standard yield (percentage)	Carcass-weight range (pounds)	Base carcass price 1/ (\$/hundred lbs.)
180-189	47.50	72.3	130-137	65.70
190-199	48.50	72.7	138-145	66.71
200-209	49.50	72.8	146-152	67.99
210-240 (preferred weight range)	50.00 (base live price)	73.0	153-175	68.49
241-250	49.75	73.2	176-183	67.96
251-260	49.25	73.5	184-191	67.01
261-270	48.75	73.7	192-199	66.15
271-280	48.25	73.9	200-207	65.29

1/ Column 2 divided by column 3.

Table 4-- Base carcass price variation within the preferred weight range of 210-240 pounds

(1)	(2)	(3)	(4)	(5)
Live-weight range (pounds)	Base live price (\$/hundred lbs.)	Standard yield (percentage)	Carcass-weight range (pounds)	Base carcass price 1/ (\$/hundred lbs.)
210-220	50.00	72.40	153-160	69.06
221-230	50.00	72.65	161-168	68.82
231-240	50.00	72.90	169-175	68.59

1/ Column 2 divided by column 3.



## Quality Grade Adjustments

The packer establishes grade standards for carcasses in each carcass-weight range. These grades are designated by names, letters, or numbers assigned by the packer. All hogs sold on a grade and yield basis are graded after slaughter by an employee of the packer.

Each packer typically has one grade for which there is no grade price adjustment. This is known as the base grade or base quality carcass. Carcasses grading above the base generally receive a premium, and those grading below receive a discount. The base carcass for each weight range is usually of relatively low quality. For example, during the period reviewed, 82 percent of the grade and yield hogs graded better than base quality.

The packer has established a schedule of price adjustments for grades. These are applied to the base carcass prices for each weight range. Grade adjustments are the packers' estimates of the difference in value of individual carcasses. The amount of premium or discount for a given grade generally varies by carcass-weight range. As most hogs grade above the base grade, grade adjustments will typically be positive (premiums) rather than negative (discounts).

Table 5 illustrates the use of grade price adjustments to the base carcass prices to obtain a schedule of plant grade and yield carcass prices. For simplicity, in this illustration, the adjustment in base carcass price for each carcass grade is uniform across all weight ranges.

## Determination of Payment for Condemned, Trimmed, and Lost Identity Carcasses

Factors also considered in determining total payment include adjustments for condemned or trimmed carcasses, or carcasses with lost identity. Depending on the firm, payment for condemned carcasses ranges from zero (where the seller stands the entire loss) to the average price and weight of the lot. Packers generally determine payment for excessively trimmed carcasses in one of three ways. Some add back the approximate weight of the trim removed before calculating carcass value; some have the seller stand the loss of weight of the trim; and others make an additional discount for the trim. For minor trim the producer loses the weight of the carcass portion removed.

Payment for unidentified carcasses is normally based on the average weight of the carcasses in the lot which are identified. Packers generally assign the grade based on either their top grade, the top grade of the identified carcasses, or the average grade of the identified carcasses. Packers lose identity of a certain number of carcasses during the slaughtering process. This loss is due mainly to problems with identifying tattoo numbers, which may be illegible, cut off due to trimming, or misread by the grader. Only one packer in this review indicates on the grade and yield settlement reports the existence of unidentified carcasses and the payment calculation. Others assimilate that information in the settlement report, and give no indication to the seller that payment for a portion of the lot was an estimate based on an average weight and assigned grade.

In summary, producers are selling carcasses not live hogs. Once the procedures illustrated in tables 2 and 3 are complete, the packer has a set of carcass-weight ranges and corresponding base carcass prices. The only reason base live price and live-weight range have any relevance is that packers quote them. For any individual carcass the total payment to the seller would be as follows:

[Base carcass price +/- premium/discount for grade] x actual carcass weight,  
less any deductions for trim.

Table 5-- Illustration of a schedule of grade premium and discount adjustments to the base carcass price  
and of the resulting schedule of grade and yield carcass prices by weight range and grade

(1) Weight range Live Carcass (pounds)	Schedule of premium and discount adjustments :										Schedule of grade and yield carcass prices :									
	Premiums					Discounts					Grade 1					Grade 2				
	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5
	dollars per 100 pounds																			
180-189	2.00	1.00	0	2.00	4.00	67.70	66.70	65.70	63.70	61.70										
190-199	2.00	1.00	0	2.00	4.00	68.71	67.71	66.71	64.71	62.71										
200-209	2.00	1.00	0	2.00	4.00	69.99	68.99	67.99	65.99	63.99										
210-240 2/	2.00	1.00	0	2.00	4.00	70.49	69.49	68.49	66.49	64.49										
241-250	2.00	1.00	0	2.00	4.00	69.96	68.96	67.96	65.96	63.96										
251-260	2.00	1.00	0	2.00	4.00	69.01	68.01	67.01	65.01	63.01										
261-270	2.00	1.00	0	2.00	4.00	68.15	67.15	66.15	64.15	62.15										
271-280	2.00	1.00	0	2.00	4.00	67.29	66.29	65.29	63.29	61.29										

1/ Grade 3 is the base grade

2/ The live-weight range of 210-240 pounds, or the carcass weight of 153-175 pounds, is the preferred or base-weight range.



## A TYPICAL GRADE AND YIELD SETTLEMENT REPORT

Producers who sell on the basis of grade and yield receive a settlement report containing carcass information about their lot of hogs. The amount and type of information in the report varies by packer. Reports generally show live-weight ranges, total live and carcass weights, grade and yield base live price, carcass prices, number in each grade, and total payment.

Two amounts shown on the settlement report which appear to be price adjustments are labeled "grade gain" and "yield gain," or some similar language. Grade gain is the portion of total payment due to the net amount of grade premiums and discounts. It is typically reported in both total and live hundredweight (cwt.) amounts. Yield gain is an amount derived from the difference between the standard yield and actual yield of the lot, and can be calculated several ways. In theory, it is the portion of the total payment attributable to the hogs yielding more than the standard yield. In reality, the seller does not receive additional payment specifically because the hogs yielded an amount above the standard yield.

Some packers report a sort factor on the settlement. It is typically a negative amount or sort loss. The sort factor shows sellers the theoretical loss from hogs weighing outside the preferred weight range. No actual deduction from the payment amount is made; however, carcasses outside the preferred weight range receive less than base price.

The total amount the seller receives is also shown as a live per hundredweight amount. The report generally compares this amount to the grade and yield base live price. The seller usually receives an amount over the base live price. This amount is approximately equal to the sum of the reported grade gain, yield gain, and sort factor.

Table 6 is a typical grade and yield settlement report with explanations and calculations of the items shown.

Table 6-- A typical grade and yield settlement report

Base live price <u>1</u> /---	\$50.00	Average base live price <u>2</u> /--	\$49.59	Total live weight <u>3</u> /-	1895
Total head <u>4</u> /-----	8	Base carcass price <u>5</u> /-----	\$68.02	Tattoo number-----	1234
		(preferred weight range)			

<u>6/</u>		<u>7/</u>	<u>8/</u>	<u>9/</u>	<u>10/</u>	<u>11/</u>	<u>12/</u>	<u>13/</u>	<u>14/</u>	<u>15/</u>	<u>16/</u>	<u>17/</u>
<u>Weight range</u>		Live	No.	Std.	Base	Carc.	Base	Grade	Grade	Grade	Total	
Live	Carcass	price	head	yield	carc.	weight	carc.		prem.	prem.	carc.	Total
					price		value	cwt.	total		price	value
231-240	170-176	50.00	1	73.5	68.02	170	115.63	2	+1.00	1.70	69.02	117.33
241-250	177-184	49.75	1	74.0	67.22	181	121.66	1	+2.00	3.62	69.22	125.28
241-250	177-184	49.75	3	74.0	67.22	537	360.97	2	+1.00	5.37	68.22	366.34
251-260	185-192	49.25	1	74.0	66.55	189	125.77	1	+2.00	3.78	68.55	129.55
251-260	185-192	49.25	2	74.0	66.55	374	248.89	3	- 0 -	0	66.55	248.89
Totals/averages		49.59			67.05	1451	972.92			14.47	68.04	987.39

Overall lot summary:

Actual yield <u>18/</u> -----	76.57	Total live weight <u>21/</u> -----	1895
Standard yield <u>19/</u> ----	73.94	Total hot carcass weight <u>22/</u> ---	1451
Yield difference <u>20/</u> --	2.63		

	<u>Total</u>	<u>Per live cwt</u>
Lot value <u>23/</u> -----	\$987.39	\$52.10
Yield gain <u>24/</u> -----	\$33.16	\$1.75
Grade gain <u>25/</u> -----	\$14.47	\$0.76
Sort factor <u>26/</u> -----	\$- 8.13	\$- 0.43

Footnotes to Table 6 (p. 13)

- 1/ The grade and yield base price per hundredweight quoted the seller. For this example, the base price represents a 211-240 pound (the preferred weight range) base quality hog.
- 2/ The per hundredweight amount the seller would have received for this lot of hogs had they been standard yielding hogs of base quality. The average base live price (\$49.59) can be computed thus:

$$\frac{\text{Total carcass weight (1451)}}{\text{Standard yield (73.94)}} = \text{Standard live wt. (1962\#)}$$

$$\frac{\text{Sum of base carcass values from column 12 (\$972.92)}}{\text{Standard live wt. (1962\#)}} = \text{Avg. base live price (\$49.59)}$$

- 3/ Actual live weight of the lot.
- 4/ Total head (8).
- 5/ The maximum base carcass price the seller will receive using a \$50.00 base live price. The base carcass price is determined thus:

$$\frac{\text{Base live price (\$50.00)}}{\text{Standard yield (73.5\%)}} = \text{Base carcass price (\$68.02)}$$

- 6/ The actual carcass weight ranges and the corresponding assigned live weight ranges.
- 7/ The grade and yield live price for each weight range. The base live price of \$50.00 is for hogs assigned to the 211-240 pound range. The \$50.00 base live price is then discounted for hogs which fall outside the preferred weight range.
- 8/ The number of carcasses by live-weight range and grade.
- 9/ The standard yields assigned to the weight ranges.
- 10/ The carcass price for each weight range prior to grade adjustments. Carcass price is determined for each weight range by using this formula:

$$\frac{\text{Live price}}{\text{Standard yield}} = \text{Base carcass price}$$

- 11/ Carcass weights reported by weight range and grade.



- 12/ The value of the carcasses, prior to grade adjustments by weight range. Base carcass value is determined by use of the following:

Base carcass price (10) x carcass wt. (11) = Base carcass value.

- 13/ Carcass grades by weight range designated by the packer's grader.

- 14/ Premiums paid per hundredweight for the corresponding grades.

- 15/ The total dollar grade premium paid by weight range, computed by the following method:

Grade premium (14) x carcass wt. (11) = Grade premium total.

- 16/ The total carcass price per hundredweight by weight range. It is the sum of the base carcass price and the grade premium.

- 17/ The total dollar value of the carcasses by weight range, computed by the following method:

Total carcass		Carcass		Total value
Price (16)	x	wt. (11)	=	per wt. range

Overall lot summary

- 18/ The actual dressing percentage of the lot. Actual yield is determined by the following means:

Total carcass wt. (1451#)		
Total live wt. (1895#)	=	Actual yield (76.57%)

- 19/ Standard yield is determined by using a weighted average of the individual standard yields in column 9. One method of computing the lot standard yield follows:

<u>Carcass wt.</u>	+	<u>Standard yield</u>	=	<u>Standard live wt.</u>
170		.735		231.29
181		.740		244.59
537		.740		725.67
189		.740		255.40
374		.740		505.40
<u>1451</u>				<u>1962.35</u>

Total carcass weight (1451)		
Sum of std. live wts. (1962.35)	=	Avg. standard yield (73.94%)

- 20/ The difference between the actual and standard yield.

- 21/ The actual live weight of the lot.

- 22/ The sum of the carcass weights from column 11.

- 23/ The gross payment to the seller. It is the sum of the total lot values per weight range from column 17. The live cwt. amount can be determined by:

$$\frac{\text{Total lot value (987.39)}}{\text{Total live weight (1895)}} = \text{Total lot value per cwt. (52.10)}$$

- 24/ The difference between the actual base carcass value and the average base live price per hundredweight. One method of computing yield gain per hundredweight is as follows:

$$\frac{\text{Total base carcass value (\$972.92)}}{\text{Total live weight (1895\#)}} = \text{Actual base live value cwt. (\$51.34)}$$

$$\frac{\text{Total base carcass value (\$972.92)}}{\text{Standard live wt. (1962\#)}} = \text{Average base live price per cwt. (49.59)}$$

(from item 19 above)

Actual live value per cwt.	\$51.34
Average base live price per cwt.	- 49.59
Yield gain per cwt.	\$ 1.75

Total yield gain can be computed thus:

Actual live weight	1895#
Yield gain per cwt.	x \$1.75
Total yield gain	\$ 33.16

- 25/ The grade gain is the sum of column 15. The live per cwt. amount can be determined by:

$$\frac{\text{Total grade gain (14.47)}}{\text{Total live weight (1895)}} = \text{Grade gain per cwt. (.76)}$$

- 26/ The relative loss that results from the hogs in the lot being outside the preferred weight range. It can be approximated using the difference between the base live price and the average base live price.

Using standard live weights as in determining average base live price, it can also be calculated by the:

Weight range	Live price	Difference	x Std. live wt.	= Sort
231-240	50.00 BASE	- 0 -	231.29	- 0 -
241-250	49.75	(.25)	244.59	(.61)
241-250	49.75	(.25)	725.67	(1.81)
251-260	49.25	(.75)	255.40	(1.92)
251-260	49.25	(.75)	505.40	(3.79)
				(8.13)

$$\frac{\text{Sort (8.13)}}{\text{Actual live wt. (1895)}} = \text{Sort per live cwt. (.43)}$$

Sort is a factor in all grade and yield programs, although not all packers report it separately. If a packer shows a sort factor, it is normally reconciling the total lot value per live cwt to the base live price of the preferred weight range. For example:

Preferred base live price	\$50.00
+ Yield gain	1.75
+ Grade gain	.76
- Sort	(.43)
Total live value	\$52.08 (\$.02 rounding difference)

If sort is not detailed the packer is reconciling the total lot value to the average base live price. For example:

Average base live price	\$49.59
+Yield gain	1.75
+Grade gain	.76
Total live value	\$52.10

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## INHERENT PROBLEMS WITH GRADE AND YIELD PROGRAMS

The concerns noted in this report are not related to the grade and yield programs themselves, but to the communication of these programs to the seller. Packers do not normally provide all the pertinent details of their grade and yield program to sellers before the sale. Also, the grade and yield settlement reports normally (1) show incorrect information by reporting live-weight ranges, (2) show potentially misleading information in the reporting of gains and premiums, and (3) fail to disclose all pertinent information concerning modification of the terms of the transaction.

### Relationship of Carcass Purchases to Live-Weight Ranges and Prices

Procurement of hogs on the basis of grade and yield, as the name implies, constitutes valuation and payment based on carcass weights and quality. The typical program emphasizes live weights and prices, which is a source of considerable confusion and error in interpreting results of grade and yield sales. The impression that individual carcasses are assigned to live-weight ranges for pricing purposes is especially misleading. They are assigned to carcass-weight ranges, which are matched with approximate live-weight ranges.

The effect of live weight assignment is illustrated in table 7. The illustration shows the 235-pound hog would be assigned to the 241- to 250-pound weight range.

Table 7-- Illustration of assignment to live-weight range for a 235-pound hog with a carcass weight of 177 pounds 1/

Live-weight range (pounds)	Grade and yield live price (\$/hundred lbs.)	Standard yield (percentage)	Carcass-weight range (pounds)	Base carcass price (\$/hundred lbs.)
210-240 <u>2/</u> (preferred wt. range)	50.00 (base live price)	73.0	153-175	68.49
241-250	49.75	73.2	176-183 <u>3/</u>	67.96 <u>4/</u>

1/ Actual yield of 75.3 percent (177 divided by 235).

2/ Actual live-weight range of the hog.

3/ Actual carcass weight of 177 pounds is assigned to the 241- to 250-pound live-weight range.

4/ Base carcass price seller receives.

If the seller illustrated in table 7 relied on live weight information, the carcass price received would be less than expected. Assignment to a higher live-weight range is more likely to occur as the actual live weight approaches the upper limit of a live-weight range. Assuming actual yields exceed standard yields, hogs lighter than 210 pounds may be assigned to live-weight ranges with higher per hundredweight prices.

As the preceding example illustrates, a packer, at times, provides the seller with incorrect information when reporting live-weight ranges on the settlement report. The frequency with which such live-weight range information will be incorrect increases with the disparity of the standard yield and the actual yield of each hog. In such cases, the seller could argue that the hog has been placed in the wrong weight range, and thus priced at the wrong base price. This is particularly true of packers who normally quote only base live prices and live-weight ranges.

### Standard Yield and Yield Gain

The confusion over the comparison between live versus carcass price is intensified by the emphasis given to "yield gain." The normal interpretation of this gain is an increase in payment due to the actual yield of the lot. The comparison being made is to a theoretical live price based on a lot of hogs that have standard yields. The yield gain is an accounting device used to explain the difference between the average base live price and the actual live price prior to the application of grade adjustments.

Among the 20 packers reviewed, standard yields varied up to 2 percent for hogs in the same weight range. The actual yield was greater than the average standard yield in 92 percent of the grade and yield lots reviewed, and exceeded it by an average of 2.0 percent. A lower standard yield will create a greater yield gain if two packers' carcass prices are the same for identical hogs. Although the yield gain is higher, payment to the seller would be the same amount from both packers. Yield gain is not actually calculated until after the value of the lot has been determined.

Some producers take their hogs off feed and water the night prior to selling on a grade and yield basis. They do this primarily to increase the yield and presumably the value of their hogs. Although this will increase yield, it will not increase the amount the seller receives. The following example illustrates the results of taking a hog off feed and water the night prior to sale. It assumes a 225-pound hog would have a live weight of 220 pounds if held off feed and water overnight. The possible loss of body tissue and the feed savings were not considered.

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Live wt.	Base price	Std. yld.	Carc. wt.	Act. yld.	Carc. price	Grade prem.	Total amt.	Amt. per cwt	Yld. gain
225	50.00	73.5	166	73.77	68.02	2.00	116.23	51.65	.22
220	50.00	73.5	166	75.45	68.02	2.00	116.23	52.83	1.36

---

In this example, the accounting would show that for the hog held off feed and water, payment per hundredweight would amount to \$1.18 more and the yield gain to \$1.14 more; however, the total amount paid would be \$116.23 in each case. The practice of shrinking hogs results in higher per hundredweight amounts and higher yield gains, but does not affect the total value of the hogs.

The seller must remember yield gain is only a tool used by the packer to explain the difference between the actual base carcass value per hundredweight and the average base live price of the lot. Total price is determined by carcass weight and base carcass price, plus any actual grade premium.

#### VARIATIONS AMONG FIRMS

Variation among the firms in determining payment on a grade and yield basis makes it difficult for the seller to decide where to market hogs and how to evaluate the results. The main differences in grade and yield programs are in standard yields, amount of weight discounts, grade criteria and adjustments, terminology, and methods of reporting the results. This section compares different aspects of the programs used at the plants reviewed. These comparisons are not intended to either recommend one program over another or criticize any one program. The purpose is to show there are differences, and to point out specifically some areas where programs differ.

##### Settlement Reports

A typical settlement report was described previously (See table 6). Although that report contains more information than most of the firms provide, each firm's settlement report can be adapted to the typical report. Appendix A (pages 36 to 47) contains sample settlement reports of the 12 firms presented in a standard format. The reports show the difference in type and form of information reported. The format includes information not used by every packer which is indicated as not applicable (N/A). In most cases packers report additional information and analyses. The format shows only factors affecting payment and other items discussed in this report. All samples are actual settlements of the firms adapted to the format. The lots are different sizes and quality and are not comparable. Table 8 is a summary of selected items reported on the settlement reports by the 12 firms reviewed.

Although the method of calculating total lot value is virtually the same for the firms, the values reported vary among the firms. Given the base live prices, to compare programs a seller must know the packers' preferred weight ranges, deductions for other weight ranges, standard yields, grade standards, and grade adjustment amounts for all weight ranges.

##### Standard Yields, Discounts, and Weight Ranges

Weight discounts vary significantly by plant. The discount for hogs assigned to the 180- to 190-pound range varied from \$1.50 to \$7.50 per hundredweight; 190-200, \$1.00 to \$3.00; 250-260, \$.25 to \$1.00; and 290-300, \$1.50 to \$4.00. Figure 1 shows the weight discounts for live-weight ranges of 190 to 200 and 250 to 260 pounds.



Table 8-- Summary of carcass data information reported by the 12 firms

Item	No. of firms reporting information
Carcass-weight ranges	3 *
Base carcass value	4
Base carcass price	5
Amount of grade premium per weight range	5 **
Total carcass price per weight range	6
Total carcass value per weight range	8
Actual lot yield	12
Lot standard yield	9
Yield gain/loss for the lot	9
Grade gain/loss for the lot	10 **
Sort factor	3

\* Includes one firm which used a code system for carcass-weight range.

\*\* One firm does not grade carcasses.

Figure 2 shows the live price discount (from figure 1) converted to a carcass price discount. The discount for the 190- to 200-pound range is higher than the 250- to 260-pound range for 12 of the 19 plants. On a live basis (figure 1) 18 of the 19 plants had higher discounts for the 190- to 200-pound range. The larger discount for the 190- to 200-pound range on a live basis is relatively less on a carcass basis for 11 of the plants. The reason light hog base carcass price discounts are not as severe as they appear on a live basis is that the standard yield for the 190- to 200-pound weight range is normally much lower than the standard yield for the 250- to 260-pound weight range. The effect the standard yield has in determining carcass price is illustrated below.

<u>Live-weight range</u>	<u>Live price</u>	<u>Standard yield</u>	<u>Carcass price</u>
190-200	\$48.50	71.3%	\$68.02
250-260	\$49.25	72.9%	\$67.55

It appears that the 250- to 260-pound hog would be the higher priced hog; however, the live price of \$48.50 actually resulted in a carcass price higher than the live price of \$49.25. The producer is selling carcasses and, therefore, the carcass price should be the determining factor rather than the live base price.

Figure 1

### Base Live Price Weight Discounts

Weight Ranges 190-200 Lbs. and 250-260 Lbs.

Discounts in dollars

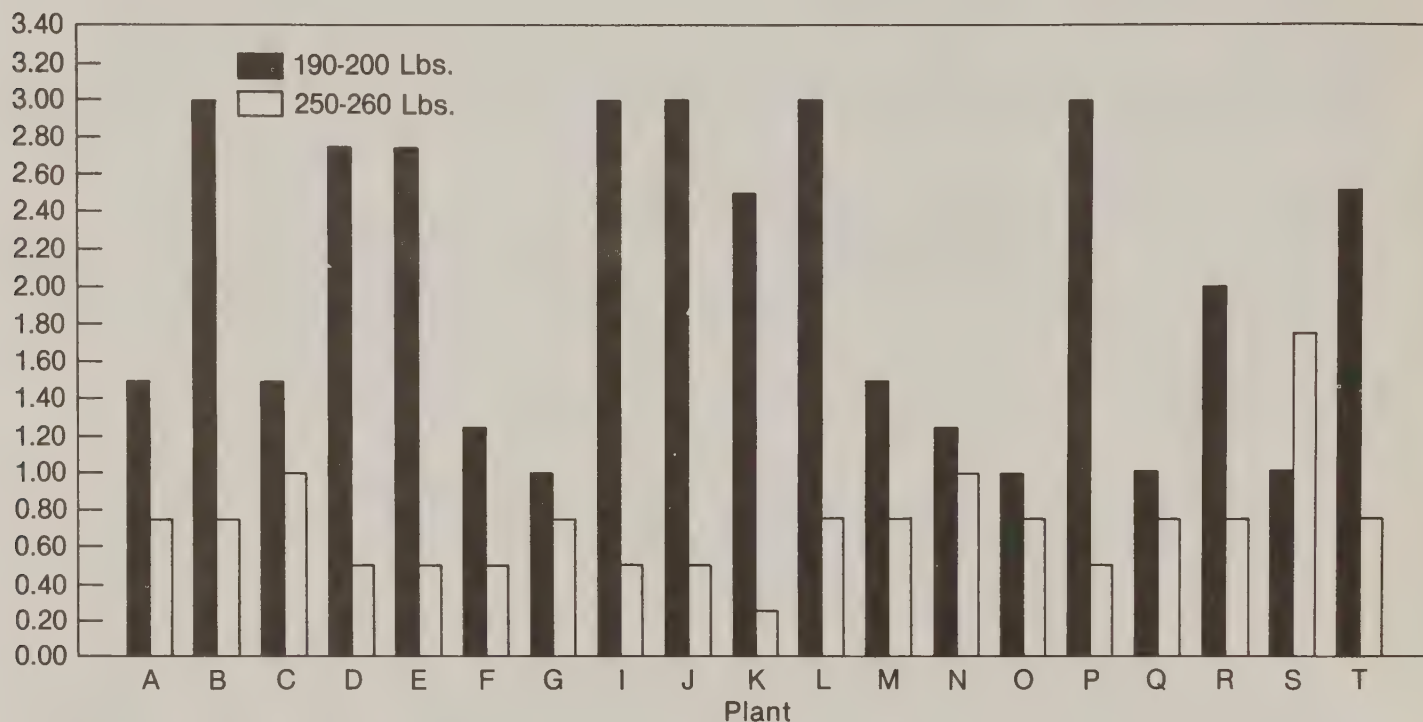
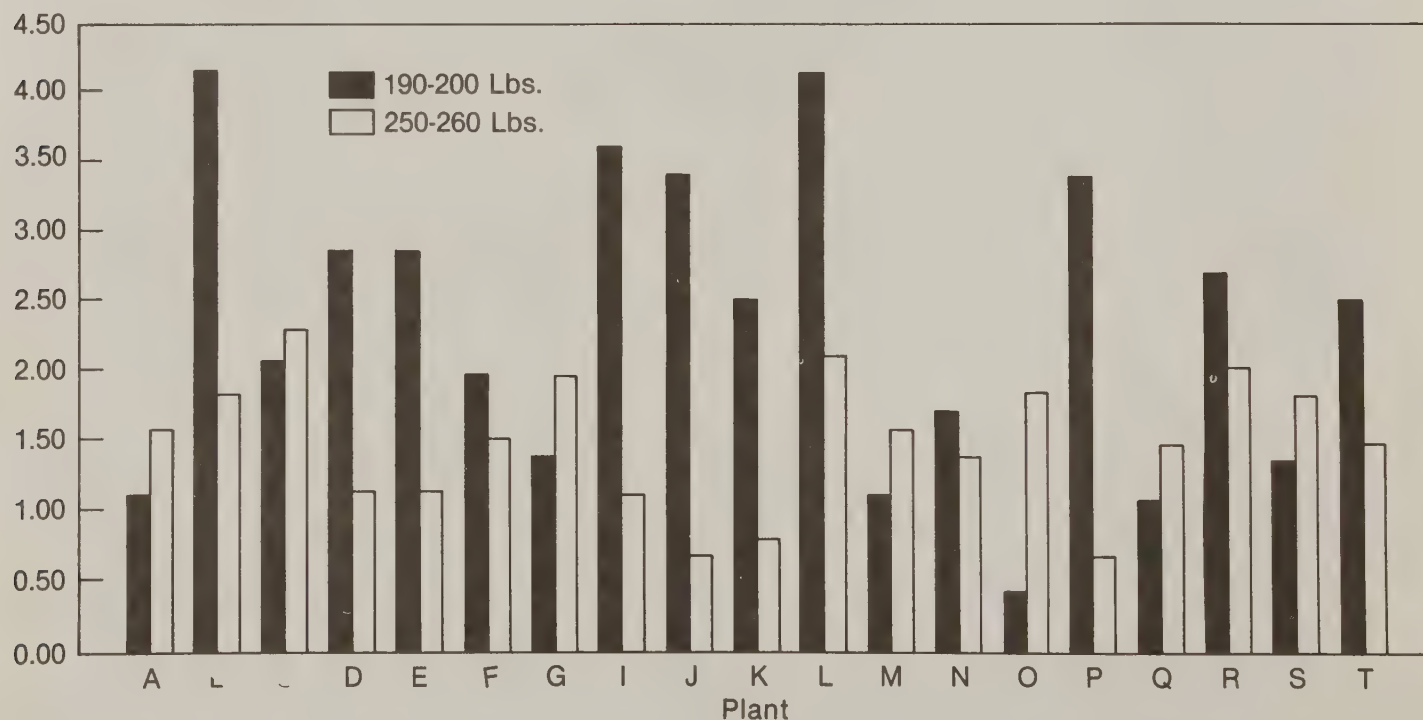


Figure 2

### Base Carcass Price Weight Discounts

\$50 Base Live Price—190-200 and 250-260 Lbs.

Discounts in dollars



Most hog producers believe the standard yield is the average yield of hogs slaughtered at that plant. The majority of the packers indicate that their standard yields are based on cut-out tests; however, standard yields currently in use are generally 1 to 3 percent below actual yields. Standard yields sometimes vary among plants owned by the same firm. The standard yields varied up to 2 percent for the same weight hog among firms within the same marketing area; however, they generally fell in the 72-73 percent range for 210- to 240-pound hogs. The average actual yield of all lots of hogs with an average weight of 210-240 was 74.8 percent. Appendix B (pages 48 to 50) shows detailed information concerning the variations in weight discounts and standard yields.

Appendix B also shows that equivalent live-weight ranges do not always result in equivalent carcass-weight ranges. Sellers aware of the information in appendix B may convert base live prices to base carcass prices, and compare these base settlement prices applicable to the carcass-weight ranges of each firm.

Table 9 shows a comparison of actual average yields to standard yields. The average standard yield of the lot is the weighted average of the standard yields used in the calculations of the lot. As indicated, 92 percent of the total grade and yield lots sampled had an actual yield higher than the standard yields. The chart shows the amount of the difference between actual and standard yield in the "Average Difference" column. The statistics in Table 9 illustrate that the standard yields are set too low if the standard is to indicate an average hog.

#### Grade Standards and Premiums/Discounts

Each packer independently establishes his own grade standards, nomenclature, and corresponding premiums or discounts. All firms reviewed use different carcass criteria to define their house grades. None of the packers use the USDA hog-grading standards. Most firms grade carcasses visually, using a combination of backfat thickness, degree of muscling, and carcass conformation; however, one firm manually obtains a backfat measurement. All grades are determined by a packer employee, called a company grader.

Packers establish a base grade for carcasses at their own desired quality level. Carcasses which grade above base receive a premium and carcasses which grade below base receive a discount. The premium or discount amount for each



Table 9-- Comparison of actual yields to standard yields for grade and yield purchases

Plant	Average actual yield	Average standard yield	Average difference (Act-std)	** Percentage of lots with difference of:									
				Over -4%	-3% to -4%	-2% to -3%	-1% to -2%	0 to -1%	0 to +1%	+1% to +2%	+2% to +3%	+3% to +4%	Over +4%
A	74.4	72.3	2.1	0.0	0.0	0.1	0.5	3.2	15.8	29.3	32.8	15.7	2.5
* B	75.1	72.3	2.8	0.0	0.0	1.0	0.5	1.3	8.0	13.9	27.6	32.2	15.5
C	74.7	72.8	1.9	0.0	0.0	0.0	0.7	2.8	16.4	38.8	31.0	8.9	1.4
* D	75.3	73.2	2.1	0.0	0.0	0.0	0.6	2.0	13.7	29.2	36.3	14.6	3.5
E	75.2	73.2	2.0	0.0	0.0	0.2	1.7	4.5	14.7	30.9	31.9	13.6	2.6
F	Does not determine a lot average standard yield.												
G	75.3	72.8	2.5	0.0	0.1	0.0	0.6	2.6	9.7	27.2	36.9	20.2	2.7
H	Standard yield not used in this plant's program.												
I	75.2	73.9	1.3	0.0	0.6	0.6	1.9	7.7	31.4	33.3	19.9	2.6	1.9
J	74.6	73.1	1.5	0.3	0.3	0.3	1.0	9.8	25.5	34.1	22.5	5.6	0.8
K	74.6	73.6	1.0	0.5	0.7	2.6	12.5	21.1	25.9	20.8	11.5	2.8	1.6
L	75.5	73.0	2.5	0.0	0.0	0.0	0.7	1.8	6.5	22.4	41.4	21.8	5.5
M	74.3	72.2	2.1	0.0	0.2	0.0	0.3	1.5	13.2	37.7	33.4	11.7	2.0
N	Does not determine a lot average standard yield.												
O	74.2	73.0	1.2	0.0	0.0	0.0	4.9	12.3	19.8	42.0	13.6	1.2	6.2
P	74.9	73.1	1.8	0.0	0.0	0.3	1.0	5.1	17.0	41.8	26.7	7.4	0.6
Q	73.8	73.0	0.8	0.0	0.3	0.3	6.3	19.6	35.7	25.5	10.8	0.3	1.0
* R	75.2	74.2	1.0	0.0	1.3	0.0	5.1	14.1	19.2	39.7	17.9	2.6	0.0
S	Does not determine a lot average standard yield.												
T	75.2	73.2	2.0	0.0	0.0	0.0	0.0	0.0	5.1	51.5	41.4	2.1	0.0
Total	74.8	72.8	2.0	0.0	0.1	0.4	2.0	5.5	16.0	30.2	29.9	13.0	2.8

\* - Information for February/March 2-week period only.

\*\* - May not total 100 percent due to computer rounding.

grade is also set independently by each firm. Since the number of grades and the standards for these grades vary from one plant to another, it is nearly impossible to make an across-the-board comparison of grade standards and premiums or discounts. For example, a top grade carcass at one firm may be required to have 1.1 inches or less of backfat, another 1.3 inches or less, and so on.

Table 10 outlines basic information about each packer's grading system. The "Basis for Grade Standards" column shows the factors used to determine each grade. For example, if the factors are backfat and muscling, the packer's grade standard might be backfat of 1.4 inches or less with thick to very thick muscling. If the factor is a percentage of primal cuts, the standard for a grade might be that the four lean primals (ham, loin, picnic, and butt) exceed 62 percent of the carcass weight. The "Method of Grading" column shows whether the grader actually measures the carcass or whether grading is done by visual appraisal. The "Top Premium" column is the highest grade premium per carcass hundredweight the packer pays.

Appendix C (pages 51 to 54) is a schedule of carcass grade premiums and discounts which were in effect at the firms in February 1982. Each packer's individual nomenclature for carcass grade is substituted with grade levels; level 1 is the best quality, level 2 second, and so on. The amount of grade premiums and discounts are of limited value without knowledge of the grade standards.

Figures 3 and 4 contain bar graphs. Figure 3 illustrates differing grade standards by showing the percentage of carcasses which occur in each grade by plant. Each packer's individual nomenclature for carcass grade has been replaced by grade levels. Grade results of live-weight purchases are also included as available. It is assumed the overall quality of hogs is consistent throughout the procurement area of all plants.

Figure 4 illustrates the distribution of grade premiums and discounts in relation to each plant's base grade. Since most firms establish at least 6 grade levels and the base grade is usually at level 3 or 4, the base grade has the appearance of an average grade. The graph illustrates that the base grade generally reflects a carcass of poorer than average quality. For the 16 plants which report grades in terms of base grades, five had more than 90 percent above the base, and six others had more than 80 percent above the base.

Table 10-- Comparison of grading systems

Plant	Number of grades	Basis for grade standards	Method of grading	Top premium per carcass cwt.
A	5	Backfat, Muscling, Conformation	Visual Appraisal	\$2.00
B	22	Backfat	Actual Measurement	N/A
C	7	Backfat, Muscling, Conformation	Visual Appraisal	\$2.00
D	8	Backfat, Muscling, Percentage of Primals, Conformation	Visual Appraisal	\$2.00
E	8	Backfat, Muscling, Percentage of Primals, Conformation	Visual Appraisal	\$2.00
F	6	Backfat	Visual Appraisal	\$2.00
G	7	Percentage of Primals	Visual Appraisal	\$2.00
H		No grading program		
I	6	Percentage of Primals	Visual Appraisal	\$1.00
J	6	Backfat, Muscling	Visual Appraisal	\$2.50
K	8	Backfat, Muscling, Percentage of Primals, Conformation	Visual Appraisal	\$2.00
L	22	Backfat	Actual Measurement	N/A
M	5	Backfat	Visual Appraisal	\$2.00
N	6	Backfat, Percentage of Primals	Visual Appraisal	\$1.75
O	7	Backfat, Percentage of Primals	Visual Appraisal	\$1.90
P	6	Backfat, Muscling	Visual Appraisal	\$2.50
Q	6	Backfat, Muscling	Visual Appraisal	\$2.30
R	22	Backfat	Actual Measurement	N/A
S	8	Percentage of Primals	Visual Appraisal	\$2.00
T	7	Backfat, Muscling	Visual Appraisal	\$1.72

N/A - Not applicable, premium on a per head basis.

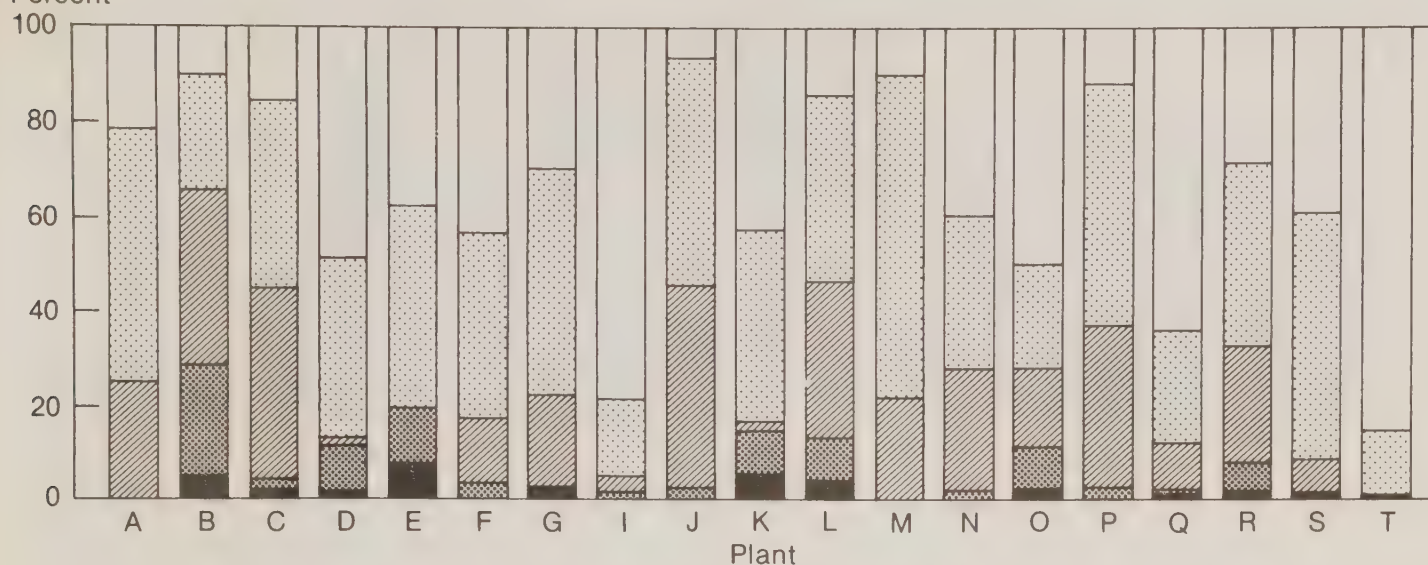


Figure 3

### Comparison of Grade Distribution

#### Purchases by Grade and Yield—Grades Assigned by Packer

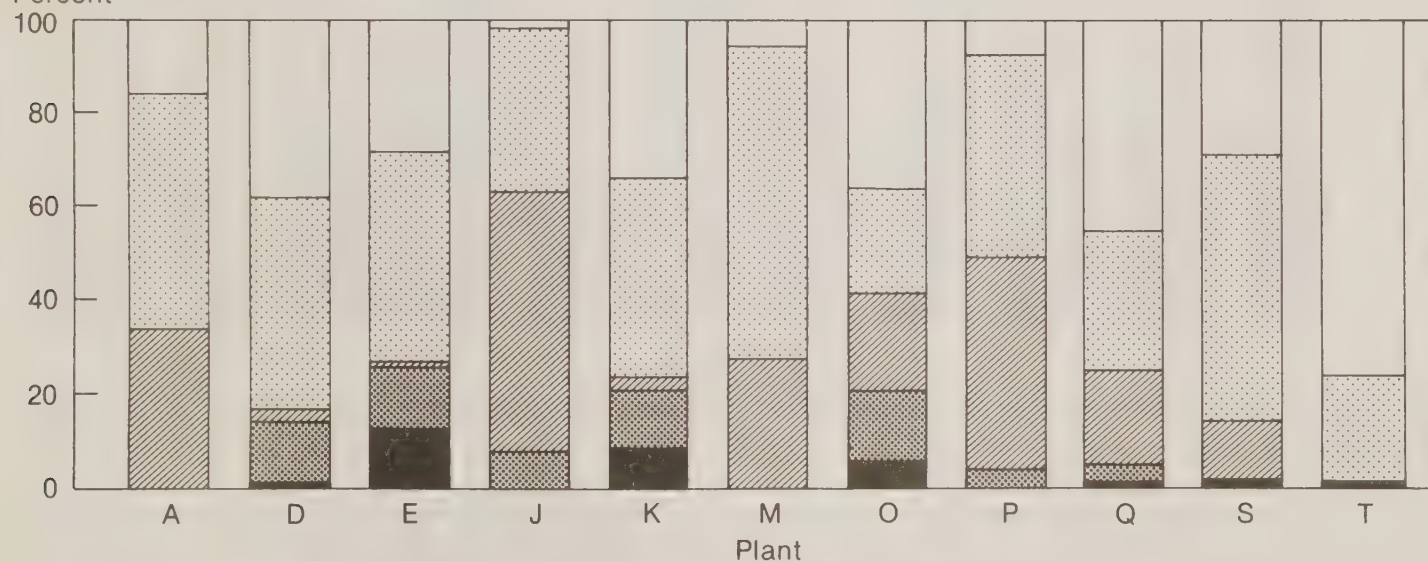
Percent



### Comparison of Grade Distribution

#### Live Purchases—Grades Assigned by Packer

Percent



■ G-5    ▨ G-4    ▩ G-3    ▤ G-2    □ G-1

The above graphs illustrate the percentage differences in the grade distribution of the various plants for both grade and yield and live purchases. For example, for plant C's grade and yield purchases 2.3% were grade 5 or below, 2.3% were grade 4, 40.9% were grade 3, 40.2% were grade 2, and 14.3% were grade 1. For plant N, the percentages were .1% in grade 5 or below, 2.0% in grade 4, 25.8% in grade 3, 32.5% in grade 2, and 39.6% in grade 1.

For some plants certain grade levels, particularly lower levels, cannot be recorded on the graph as very few hogs graded at those levels. For example, plant A has 5 grade levels; however, only .1% and .2% of grade and yield and live purchases respectively graded below level 3. Therefore, only 3 grade levels are graphed for plant A. (See Appendix C for all grade levels of the plants.)

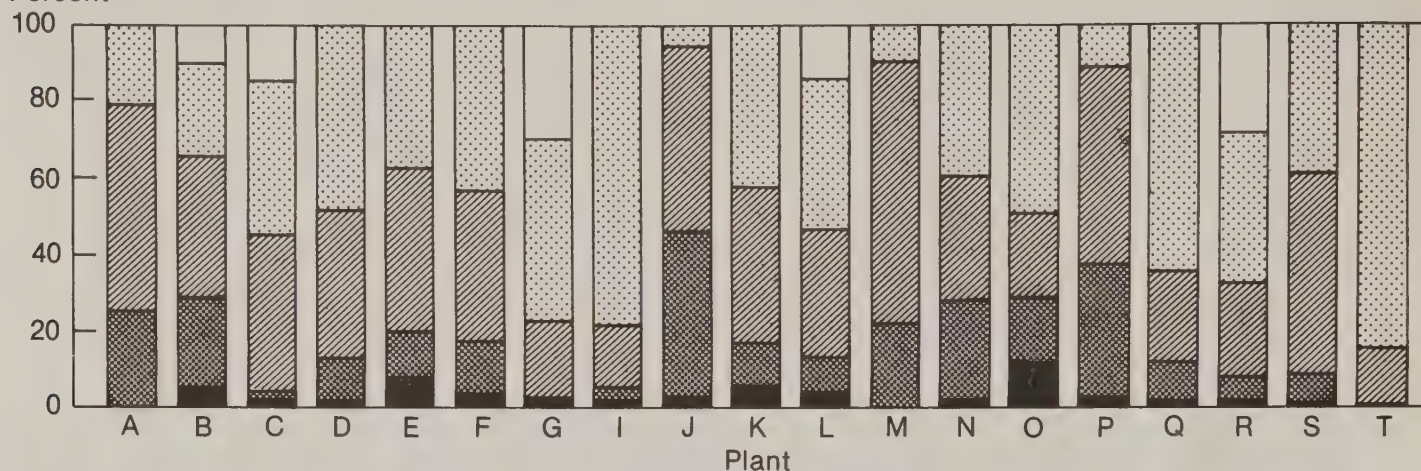
NOTE: The 5 grade levels for plants B, L, R are used for internal statistical purposes. They are converted to 22 levels on the Schedule of Adjustments for Grade (Appendix C). G&Y purchases - Plants B, D, L, R information for February/March two-week period only. Live purchases - Plants D, O, P information for February/March two-week period only.

Figure 4

## Comparison of Grade Distribution

### Purchases by Grade and Yield—Base, Premiums and Discounts

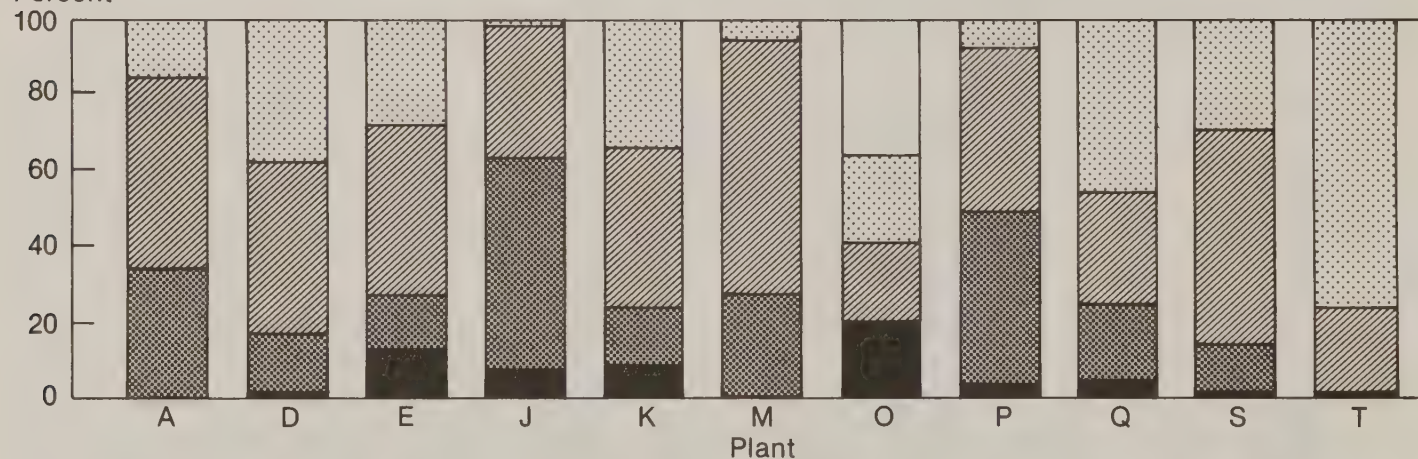
Percent



## Comparison of Grade Distribution

### Live Purchases—Base, Premiums and Discounts

Percent



■ -1dn    ▨ Base    ▤ +1    ▦ +2    □ +3

The above graphs illustrate the percentage of hogs in premium, base, and discounted grades by plant. The base grade is that for which no monetary adjustment for grade is made. Those with a (+) are grade levels with premiums. Those with a (-) are discounted grades. For example, plant E had 7.8% of grade and yield purchases discounted, 11.8% with no adjustment (base grade), and 80.4% received a premium. The premiums were comprised of 2 levels with 37.5% receiving highest premiums and 42.9% receiving lesser premiums. Plant G had 1.9% discounted, .4% with no adjustment, and 97.7% received a premium. Plant G premiums were comprised of 3 levels with 30.2% receiving highest premiums, 47.8% receiving middle premiums, and 19.7% receiving lowest premiums.

For some plants certain grade levels, particularly lower levels, cannot be recorded on the graph as very few hogs graded at those levels. For example, plant T has 7 grade levels; however, only .4% of grade and yield purchases graded at base and only .3% graded in discounted grades. Therefore, only 2 grade levels are graphed for plant T. (See Appendix C for all grade levels of the plants.)

NOTE: Plant O does not have a base grade. All G&Y purchases receive a premium or discount. The 5 grade levels for plants B, L, R are used for internal statistical purposes. They are converted to 22 levels on the Schedule of Adjustments for Grade (Appendix C). G&Y purchases - Plants B, D, L, R information for February/March two-week period only. Live purchases - Plants D, O, P information for February/March two-week period only. Hogs purchased on a live basis do not actually receive a monetary grade adjustment. For live purchases, this exhibit shows the carcass grade category of the hogs.



In considering the grading results of live purchases, it appears that only one firm, represented by plants J and P, established a base grade at a level to reflect an average quality of all hogs purchased.

Appendix D (pages 55 to 57) illustrates the grade premium and discount amounts from 19 plants on a grade and yield basis and 13 on a live basis. This appendix contains two graphs and two tables which provide information to support the graphs. No carcass premiums or discounts are paid for live purchases; however, some packers do grade their carcasses. The amounts used in the appendix represent the premiums and discounts as if purchased on a grade and yield basis. The bar graphs show the percentage of carcasses receiving various premiums or discounts. The tables show the same information by plant. Both report the results of hogs sold in lots with average weights of 210-240 pounds. For comparison, they assume no large variation in weights within the lot so that all hogs receive the same premium as a carcass from a hog with an approximate live weight of 210-240 pounds.

#### Grade and Yield Live Price

Sellers who market their hogs on a grade and yield basis normally are quoted a base live price for their hogs. A few packers will also quote a base carcass price along with the base live price. Although the base live price is important when computing payment, the standard yield is equally important. Producers who sell hogs on the basis of grade and yield, are paid a carcass price per hundredweight determined by dividing the base live price by the standard yield. Therefore, the base live price and the standard yield must both be considered when comparing packers.

The problem of comparing base live prices is illustrated in figure 5. The graphs show two carcass prices for a 225-pound live hog at nine packers located in the same general marketing area. Each packer's actual standard yield for the range was used. The first graph assumes all offered the same base live price of \$47.00. The actual base carcass price the seller would receive varies from \$63.51 at packer I to \$65.28 at packers N and B.

The second graph is calculated by use of the most prevalent actual base live price at each plant on the same day. These graphs illustrate the common misunderstanding that a higher base live price always means a higher carcass price. The following example (taken from figure 5) demonstrates this point.

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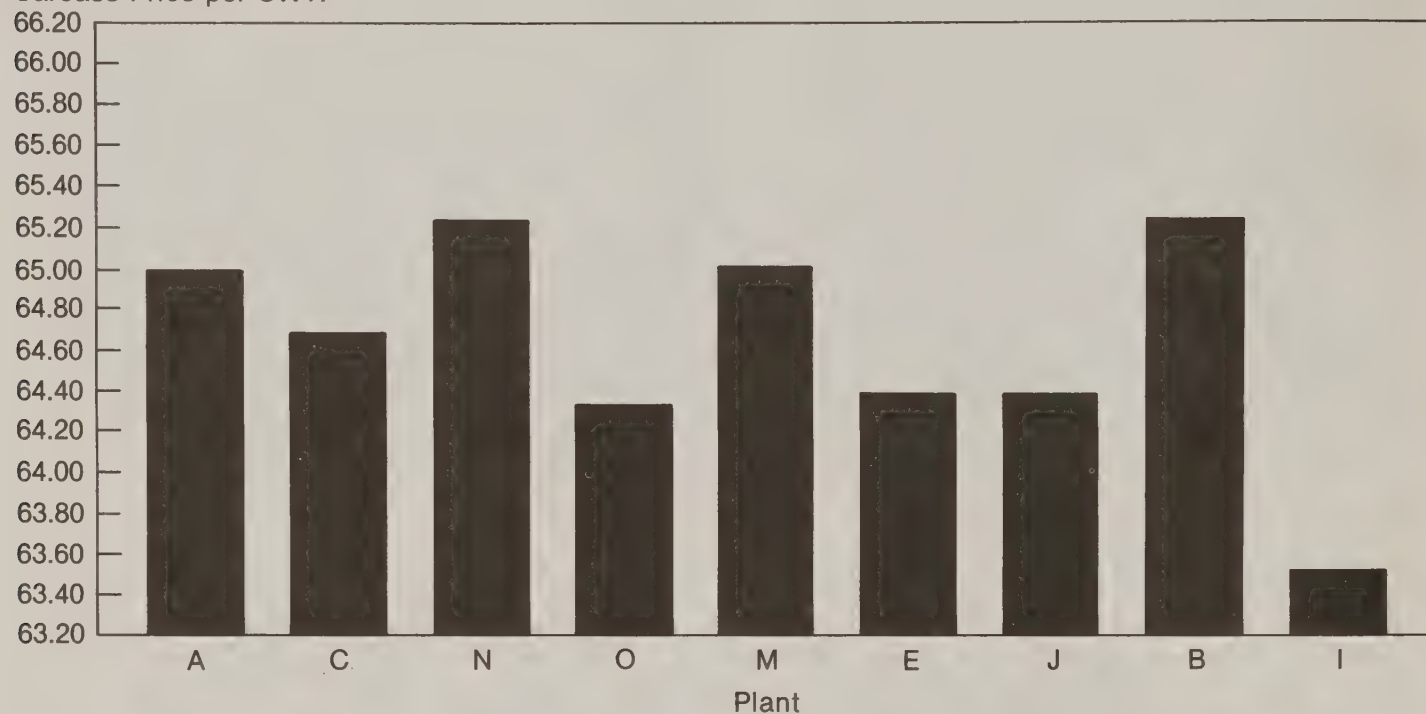
	<u>Base price</u>	÷	<u>Standard yield</u>	=	<u>Carcass price</u>
Packer N	\$47.00		72.00%		\$65.28
Packer O	\$47.25		73.05%		\$64.68

---



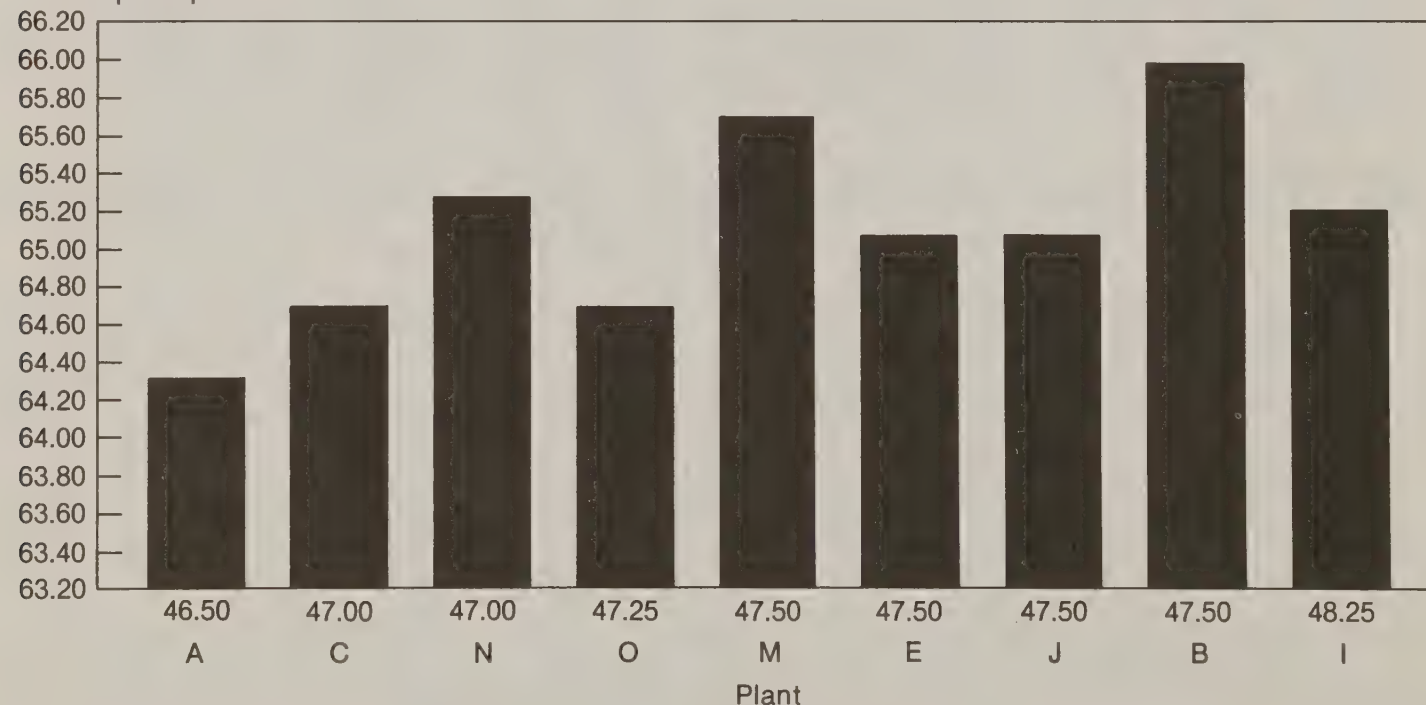
### Comparison of Carcass Price for Grade and Yield Base Live Price of \$47.00

Carcass Price per CWT.



### Comparison of Carcass Price for Prevalent Grade and Yield Base Live Price

Carcas price per CWT.



The grade and yield base live price is not always the price the seller would receive for live sales, even if the grade and yield base and the quoted live price are the same. Packers normally pay more than the quoted live price for better quality hogs. Generally, packers set their grade and yield base live price lower than the quoted live price. A "premium" over the grade and yield base live price does not necessarily mean the seller received more than if the lot were sold live.

#### Actual Price Comparison of Sample Lots

To further illustrate the variability among firms, four separate lots of hogs were compared. These four lots of hogs, which were actually sold to one packer, were also applied to the grade and yield programs of seven other packers located in the same general marketing area. The four lots vary in average weight and range of weights within the lot. Lot 1 consists of light hogs which averaged 201 pounds; lot 2 is a uniform lot of hogs which averaged 225 pounds; hogs in lot 3 averaged 229 pounds with a variation in weights; and lot 4 consists of heavy hogs which averaged 249 pounds.

For the purpose of comparing the sample lots of hogs, the following items from each packer's grade and yield program were considered:

- 1) Packer's most prevalent base live price for each purchase date.
- 2) Weight range discounts.
- 3) Carcass-weight assignments to their corresponding live-weight range.
- 4) Standard yields by live-weight range.
- 5) Grades and grade adjustments by weight range. Although most packers consider backfat thickness, carcass conformation, and degree of muscling for determination of grades, this comparison used only backfat thickness in inches.

The results of the comparisons for the lots are shown in figures 6 and 7. The comparisons show a difference in the base live price and total live value per hundredweight for the same lot of hogs. The graphs illustrate the base live price is not the most important factor when determining the best market outlet. In some instances, a packer with a higher base live price paid less for hogs than a packer with a lower base live price. One example of this is shown in lot 1, packer C and packer J. The live values per hundredweight of the four sample lots varied from \$0.70 to \$1.40 per hundredweight between the highest and lowest prices.

The need to closely sort hogs sold on the basis of grade and yield is illustrated by lot 3. The average live weight of hogs on the lot is 229 pounds, although the approximate live-weight ranges vary from 181 to 290 pounds. This weight disparity results in numerous hogs being discounted because they are too heavy or too light. Therefore, the price at five of the eight packers actually was less per live hundredweight than the base live price. The carcass data is shown in appendix E (pages 58 to 61).

The variations among firms create difficulties for sellers in determining the best marketing outlet. The seller must know each packer's base live price and standard yield by weight range to determine carcass prices. The seller also must estimate the carcass weights, and know each packers' carcass-weight ranges. The seller then must compare each packer's grade specifications along with their premiums and discounts for each grade by weight range. All the variables make comparing packers grade and yield programs prior to a sale nearly impossible. Table 11 is a summary of the variations among firms. It shows the typical grade and yield program along with any significant deviations.

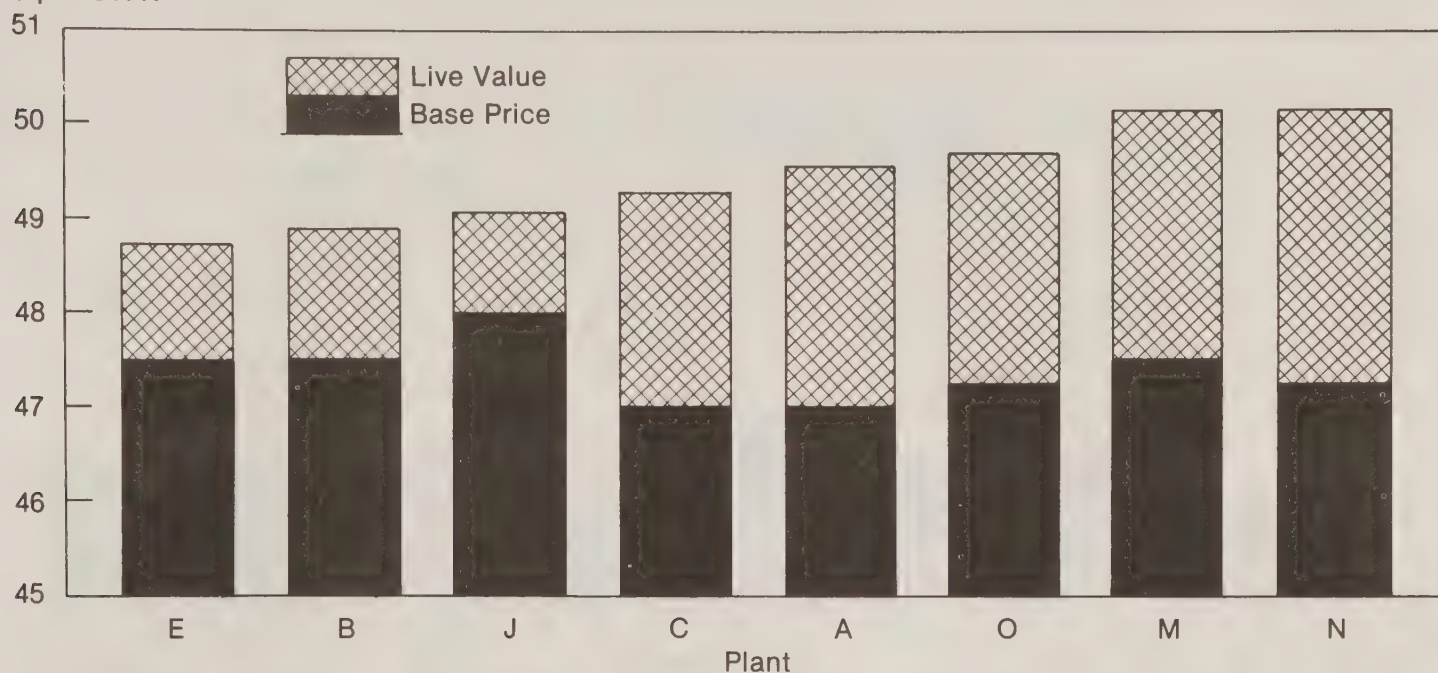


Figure 6

## Live Price Versus Grade and Yield Base Live Price

### Sample Lot 1

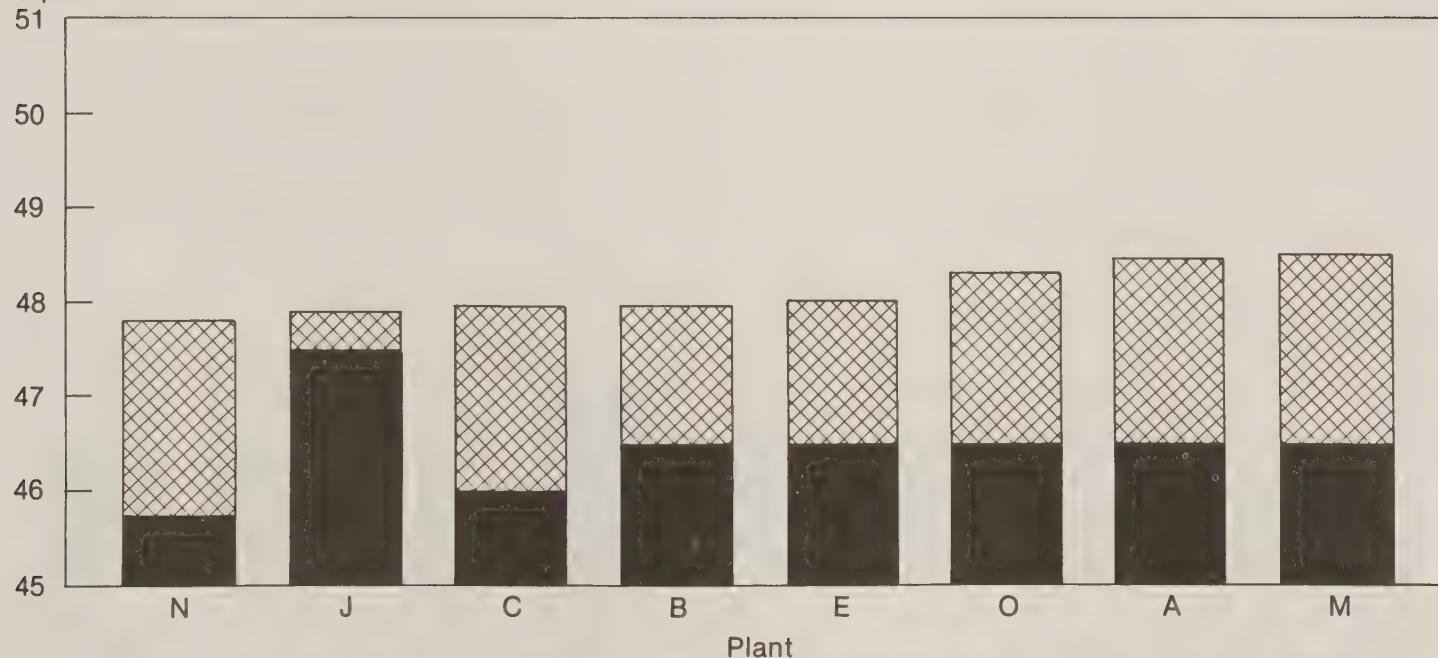
\$ per CWT.



## Live Price Versus Grade and Yield Base Live Price

### Sample Lot 2

\$ per CWT.



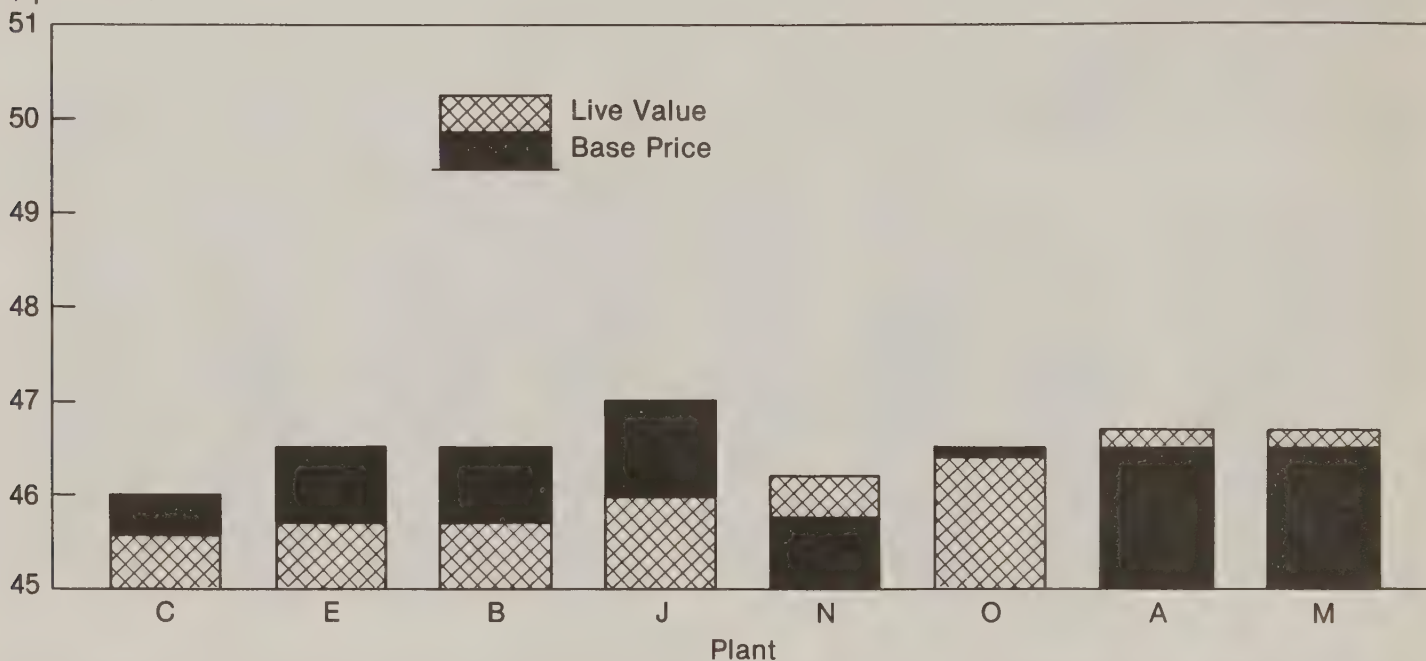
Lot 1 consists of light hogs with an average weight of 201 lbs. Lot 2 consists of uniform hogs with an average weight of 225 lbs. For Lot 1, plant J has the highest base live price although the highest settlement price is paid by plants M & N. For Lot 2, plant J has the highest base live price; however, 6 firms have higher settlement prices.

Figure 7

# Live Price Versus Grade and Yield Base Live Price

## Sample Lot 3

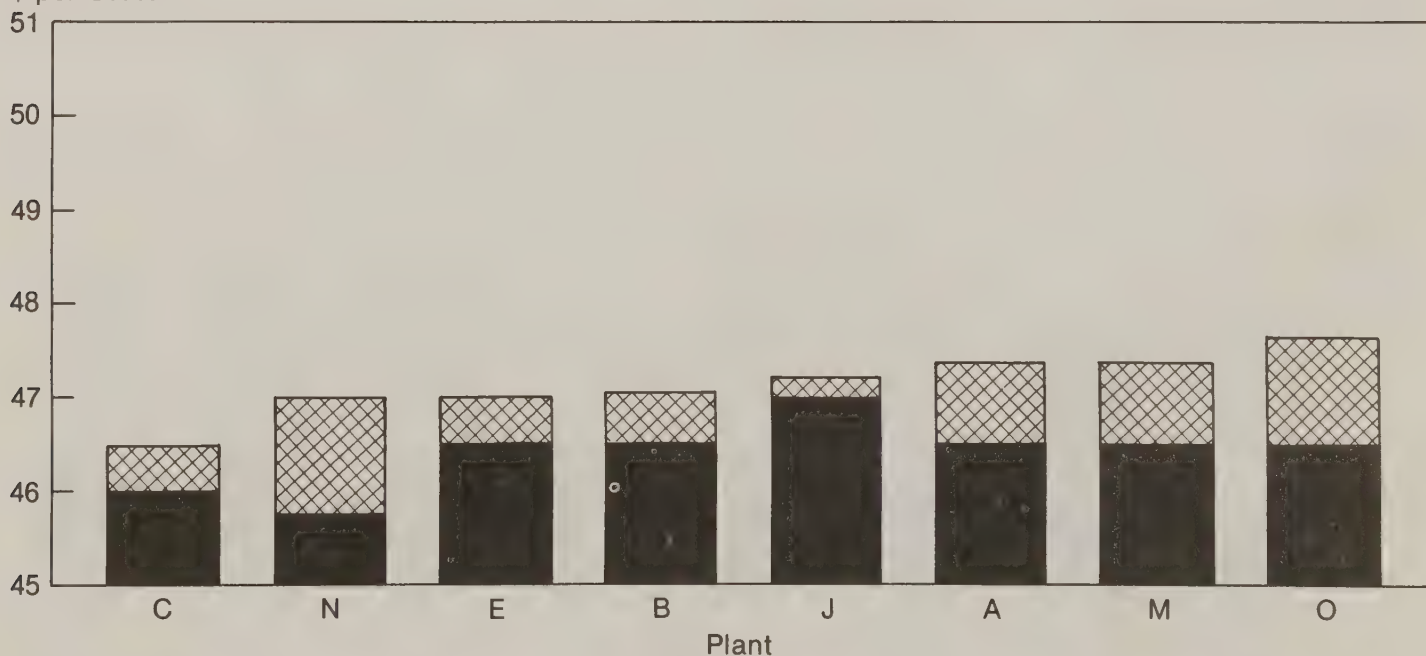
\$ per CWT.



# Live Price Versus Grade & Yield Base Live Price

## Sample Lot 4

\$ per CWT.



Lot 3 consists of hogs of widely varying weights with an average of 229 lbs. Lot 4 consists of heavy hogs with an average weight of 249 lbs. For Lot 3, plant J has the highest base live price; however, 4 plants have higher settlement prices. Lot 3 also shows the base live prices exceeding settlement prices for 5 of the plants. For Lot 4, plant J has the highest base live price, although the highest settlement price is paid by plant O.

Table 11-- Synopsis of grade and yield programs

<u>Item</u>	<u>Typical program</u>	<u>Significant deviations</u>
<u>Preferred live-weight range:</u>	210-240	200-230; 220-250; 210-260
<u>Base live price:</u>		
Relation to live	Same; to \$1.00 under	Varies with market
At buying station vs plant delivered	Generally \$.25-\$.50 less	Same price; up to \$1.00 less
<u>Weight range variation:</u>		
Standard yield- preferred range	72 - 74 percent	63 percent (skinned); no standard yield
Preferred carcass	153-175	133-151; 153-190
<u>Grading:</u>		
Where/when	Kill floor at hot wt. scale	No significant deviations
How	Visual	Actual measurement
Criteria	Backfat, muscling, conformation	Backfat only; percent- age of primal cuts
Number of grades	6	5 to 22
Maximum grade premium per carcass cwt.	\$2.00	\$1.00 to \$2.50; per head basis
Maximum grade discount per carcass cwt.	\$3.00	\$1.39 to \$15.00; per head basis



## APPENDIX A

Firm 1

## Sample Grade and Yield Settlement Report

Live base price ----- \$47.50    Total head ----- 30    Base carcass price    N/R  
 Average live base price    N/A    Total live weight 6880    (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
190-200	N/R	N/R	1	N/R	N/R	143	N/R	3	N/R	N/R	64.51	92.24
210-220			2			313		2			66.94	209.52
220-230			1			163		1			67.69	110.33
220-230			3			498		2			66.94	333.36
220-230			4			664		3			65.69	436.18
230-240			1			173		1			67.69	117.10
230-240			4			688		2			66.94	460.54
230-240			2			345		3			65.69	226.63
240-250			3			537		2			66.24	355.70
240-250			4			714		3			64.99	464.02
250-260			1			190		2			65.37	124.20
250-260			2			374		3			64.12	239.80
270-280			1			202		2			63.50	128.27
270-280			1			201		3			62.50	125.62

Totals			30			5205						3423.51
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Lot summary:

Total live weight --- 6880		Total	Per live cwt
Total carcass weight 5205	Yield gain --	\$141.03	\$2.05
Actual yield ----- 75.65	Grade gain --	\$ 36.55	\$ .53
Standard yield ---- 72.50	Sort gain ---	N/A	N/A
Yield difference --- 3.15	Lot value -	\$3423.51	\$49.76

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

# APPENDIX A

## Firm 2

### Sample Grade and Yield Settlement Report

Live base price ----- \$49.50      Total head ----- 34      Base carcass price      N/R  
Average live base price      N/A      Total live weight 7725      (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
200-209	N/R	N/R	1	73.75	66.44	147	97.67	9	N/A	1.05	N/A	N/R
200-209			1	73.75	66.44	155	102.98	9	*	1.05		
210-220			1	73.75	67.12	156	104.71	10		.90		
210-220			1	73.75	67.12	157	105.38	9		1.25		
210-220			1	73.75	67.12	158	106.05	9		1.25		
210-220			1	73.75	67.12	159	106.72	8		1.60		
210-220			1	73.75	67.12	162	108.73	7		1.95		
210-220			1	73.75	67.12	162	108.73	8		1.60		
221-230			1	74.00	66.89	164	109.70	8		1.60		
221-230			1	74.00	66.89	164	109.70	8		1.60		
221-230			1	74.00	66.89	166	111.04	9		1.25		
221-230			1	74.00	66.89	167	111.71	9		1.25		
221-230			1	74.00	66.89	169	113.04	10		.90		
221-230			1	74.00	66.89	170	113.71	8		1.60		
221-230			1	74.00	66.89	170	113.71	8		1.60		
221-230			1	74.00	66.89	170	113.71	8		1.60		
231-240			1	74.25	66.67	172	114.67	7		2.10		
231-240			1	74.25	66.67	173	115.34	10		1.05		
231-240			1	74.25	66.67	174	116.01	9		1.40		
231-240			1	74.25	66.67	174	116.01	10		1.05		
231-240			1	74.25	66.67	175	116.67	6		2.45		
231-240			1	74.25	66.67	175	116.67	7		2.10		
231-240			1	74.25	66.67	177	118.01	3		3.50		
231-240			1	74.25	66.67	177	118.01	9		1.40		
241-250			1	74.60	66.02	180	118.84	6		2.65		
241-250			1	74.60	66.02	180	118.84	8		1.95		
241-250			1	74.60	66.02	180	118.84	8		1.95		
241-250			1	74.60	66.02	186	122.80	8		1.95		
241-250			1	74.60	66.02	186	122.80	9		1.60		
241-250			1	74.60	66.02	187	123.46	8		1.95		
251-260			1	74.90	65.09	194	126.27	9		1.60		
251-260			1	74.90	65.09	195	126.93	7		2.30		
251-260			1	74.90	65.09	195	126.93	8		1.95		
Totals **			33			5676	3774.39			55.00		

#### Lot summary:

Total live weight --- 7725		Total	Per live cwt
Total carcass weight 5676	Yield gain --	\$79.62	\$1.03
Actual yield ----- 75.77	Grade gain --	\$55.00	\$ .71
Standard yield ---- 74.22	Sort gain ---	N/A	N/A
Yield difference --- 1.55	Lot value -	\$3831.27	\$49.51

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* Grade premiums on a per carcass basis, not per cwt.

\*\* One carcass condemned, so settlement is for 33 carcasses.

## APPENDIX A

Firm 3

## Sample Grade and Yield Settlement Report

Live base price ----- N/R\*      Total head ----- 40      Base carcass price \$59.39  
 Average live base price \$42.84      Total live weight 9220      (Preferred weight range)

Weight range	Live	No.	Std.	Base	Carc.	Base	Grade	Grade	Grade	Total	Total
Live	Carcass	price	head	yield	price	weight	carcass	prem.	prem.	carc.	price
N/R					N/R		N/R	cwt.	total	N/R	N/R
Number in grade:											
								1	2	3	4
200-209	42.50	1	72.40		151						
210-220	43.00	2	72.40		311			1	1		
221-230	43.00	11	72.65		1791			5	4	1	
231-240	43.00	14	72.90		2394			2	12		
241-250	42.75	7	73.15		1251				6	1	
251-260	42.25	5	73.40		938			2	1	2	
The following grade information reported separately on settlement:											
		10			1689			1	1.78	30.07	
		24			4121			2	1.21	49.92	
		4			715			3	.49	3.49	
Grade totals		38			6525					83.48	
Partial carcass adj.**		2			311			7	-3.00	- 9.33	
Totals		40			6836					83.48	

9220	Total	Per live cwt
Sort gain --	\$66.38	\$ .72
Grade gain --	\$83.48	\$ .91
Sort gain ---	N/A	N/A
Lot value -	\$4090.38	N/R

yield ---- 72.92  
 Yield difference --- 1.22

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* Live base not shown separately, but is listed in live price column.

\*\* Adjustment is discount for carcasses with portions trimmed off.



## APPENDIX A

## Firm 4

## Sample Grade and Yield Settlement Report

Live base price ----- N/R      Total head ----- 29      Base carcass price N/R  
 Average live base price \$44.45      Total live weight 6430      (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
191-200	N/R	N/R	4	N/R	58.68	578	339.17	1	0	0	N/R	339.17
201-200			1		60.61	149	90.31	1	2.00	2.98		93.29
211-220			1		61.64	160	98.62	1	2.00	3.20		101.82
211-220			2		61.64	317	195.40	2	1.00	3.17		198.57
221-230			2		61.64	333	205.26	2	1.00	3.33		208.59
221-230			1		61.64	167	102.94	4	-2.00	-3.34		99.60
231-240			1		61.64	174	107.25	1	2.00	3.48		110.73
231-240			8		61.64	1363	840.15	2	1.00	13.63		853.78
241-250			4		60.88	717	436.51	1	2.00	14.34		450.85
241-250			1		60.88	182	110.80	3	0	0		110.80
251-260			1		60.54	186	112.60	4	-2.00	-3.72		108.88
261-270			1		59.79	197	117.79	1	2.00	3.94		121.73
271-280			1		59.12	201	118.83	3	0	0		118.83
271-280			1		59.12	200	118.24	4	-2.00	-4.00		114.24

Totals		29		4924		2993.87		37.01		3030.88
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Lot summary:

Total live weight --- 6430	Total	Per live cwt
Total carcass weight 4924	Yield gain -- \$135.57	\$2.11
Actual yield ----- 76.58	(	
Standard yield ---- 73.11	Sort	
Yield difference --- N/R	Lot	

N/R - Not reported on settlement sheet, but used in packer's program.  
 N/A - Not applicable; packer doesn't use or report this data.

## APPENDIX A

Firm 5

## Sample Grade and Yield Settlement Report

Live base price -----	N/R	Total head -----	7	Base carcass price \$69.05
Average live base price	N/A	Total live weight	1505	(Preferred weight range)

Weight range	Live	No.	Std.	Base	Carc.	Base	Grade	Grade	Total		
Live	Carcass	price	head	yield	price	weight	value	cwt.	prem.	carc.	
N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	N/R	
							*	Number in grade:			
								1	2		
180-190		1		64.25	117			1	1		
200-210		3		68.65	388			1	2		
220-230		1		69.05	137			1			
240-250		1		68.30	155			1			
250-260		1		67.55	162				1		

The following grade information reported separately on settlement:

3	421	1	2.00	8.42
4	538	2	1.15	6.18

Totals	7	959	651.43	14.60
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Lot summary:

Total live weight ---	1505		Total	Per live cwt
Total carcass weight	959	Yield gain --	N/A	N/A
Actual yield -----	63.72	Grade gain --	\$14.60	\$ .97
Standard yield ----	N/R	Sort gain ---	N/A	N/A
Yield difference ---	N/A	Lot value -	\$666.03	\$44.25

N/R - Not reported on settlement sheet but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* Total base carcass only is reported.

## Sample Grade and Yield Settlement Report

Live base price -----	N/A	Total head -----	31	Base carcass price \$60.00
Average live base price	N/A	Total live weight	7645	(Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
N/A	2	N/A	1	N/A	N/A	218	N/A	N/A	N/A	N/A	52.25	113.91
	3		12			2428		**			57.25	1390.03
	4		13			2428					59.25	1438.59
	5		3			496					60.00	297.60
	6		1			149					60.00	89.40
	9		1			108					45.00	48.60

Totals	31	5827	3378.13
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Lot summary:

Total live weight --- 7645		<u>Total</u>	<u>Per live cwt</u>
Total carcass weight 5727	Yield gain --	N/A	N/A
Actual yield ----- 76.22	Grade gain --	N/A	N/A
Standard yield ---- N/A	Sort gain ---	N/A	N/A
Yield difference --- N/A	Lot value -	\$3392.70	\$44.38
		***	

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* Carcass weight range shown by codes, not actual range.

\*\* Carcasses are not graded.

\*\*\* \$.25 per carcass cwt. (14.57) added into lot value as adjustment to carcass price because seller historically has good quality hogs.



## APPENDIX A

Firm 7

## Sample Grade and Yield Settlement Report

Live base price ----- N/R\*      Total head ----- 130      Base carcass price \$64.86\*  
 Average live base price \$47.68      Total live weight 28920      (Preferred weight range)

Weight range		Live	No.	Std.	Base	Carc.	Base	Grade	Grade	Grade	Total	Total
Live	Carcass	price	head	yield	carc.	weight	carcass		prem.	prem.	carc.	value
					price		value		cwt.	total	price	N/R
												N/R
								Weight in grade:				
								1	2	3	4	
190-199	139-146	45.00	3	73.50	61.22	434	265.69	434				
200-209	147-155	47.00	15	74.00	63.51	2265	1438.50	1508	757			
210-219	156-162	48.00	27	74.00	64.86	4297	2787.03	3978	319			
220-229	163-170	48.00	23	74.00	64.86	3818	2476.36	3156	164	330	168	
230-239	171-178	48.00	24	74.50	64.43	4161	2680.93	3814	347			
240-249	179-185	47.75	23	74.50	64.09	4186	2682.81	4006	180			
250-259	186-193	47.50	6	74.50	63.76	1127	718.58	940		187		
260-269	194-202	47.00	4	74.50	63.09	782	493.36	782				
270-279	203-209	46.50	1	75.00	62.00	208	128.96	208				
280-289	210-217	45.50	1	75.00	60.67	211	128.01	211				

The following grade information reported separately on settlement:

114**	19373	1	1.00	193.73
11	1767	2	.50	8.84
3	517	3	0	0
1	168	4	-.50	-.84

Totals	127	21489	13800.23	201.73
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Lot summary:

Total live weight ---	28920	Total	Per live cwt
Total carcass weight	21825**	Yield gain --	N/R \$ .79
Actual yield -----	75.47	Grade gain --	\$201.73 \$ .70
Standard yield ----	74.24	Sort gain ---	N/R N/R
Yield difference ---	1.23	Lot value -	\$14217.74** \$49.17

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* Live and carcass base not shown separately, but listed in live and carcass price columns.

\*\* Identity lost on 2 hogs, average weight (336) & price (215.78) added to payment; given grade #1 premium.

One carcass was condemned, so settlement for 129 carcasses.

## APPENDIX A

Firm 8

## Sample Grade and Yield Settlement Report

Live base price ----- \$42.50    Total head ----- 26    Base carcass price \$58.22  
 Average live base price    N/A    Total live weight 6185    (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
231-240	N/R	N/R	3	N/R	N/R	517	N/R	1	N/R	N/R	59.72	308.75
210-220			1			160		2			58.97	94.35
221-230			1			167		2			58.97	98.48
231-240			4			681		2			58.97	401.59
241-250			4			710		2			59.22	420.46
251-260			3			556		2			59.22	329.26
271-280			1			204		2			56.37	114.99
221-230			1			162		3			58.22	94.32
231-240			1			171		3			58.22	99.56
241-250			2			353		3			58.22	205.52
251-260			4			748		3			58.22	435.49
231-240			1			174		4			57.47	100.00

Totals			26			4603						2702.77
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Lot summary:

Total live weight ---	6185	Total		Per live cwt
Total carcass weight	4603	Yield gain ----	N/R	\$ .82
Actual yield -----	74.4	Grade gain ----	N/R	\$ .46
Standard yield -----	73.0	Sort gain -----	N/R	-\$ .08
Yield difference ----	1.4	Lot value -	\$2702.77	\$43.70

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

## APPENDIX A

Firm 9

## Sample Grade and Yield Settlement Report

Live base price ----- \$43.00    Total head ----- 15    Base carcass price    N/R  
 Average live base price    N/R    Total live weight 3245    (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
200-209	N/R	N/R	3	N/R	N/R	444	N/R	1	N/R	N/R	60.46	268.53
210-220			4			625		1			60.76	379.75
241-250			1			181		1			60.05	108.69
200-209			2			300		2			59.58	178.74
210-220			2			316		2			59.86	189.16
231-240			1			174		2			59.86	104.16
231-240			1			174		3			59.11	102.85
241-250			1			181		3			58.40	105.70

Totals			15			2395						1437.58
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Lot summary:

Total live weight --- 3245		Total	Per live cwt
Total carcass weight 2395	Yield gain --	\$16.00	\$ .49
Actual yield ----- 73.81	Grade gain --	\$32.00	\$ .98
Standard yield ---- 72.97	Sort gain --	\$ 5.00	-\$ .15
Yield difference --- N/R	Lot value -	\$1437.58	\$44.30

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.



## APPENDIX A

Firm 10

## Sample Grade and Yield Settlement Report

Live base price ----- \$43.50      Total head ----- 42      Base carcass price \$59.59  
 Average live base price    N/A      Total live weight 9080      (Preferred weight range)

Weight range		Live	No.	Std.	Base	Carc.	Base	Grade	Grade	Total	Total	
Live	Carcass	price	head	yield	carc.	weight	carcass		prem.	prem.	carc.	
					price		value		cwt.	total	price	
											value	
170-179	N/R	N/R	2	N/R	N/R	258	N/R	1	N/R	N/R	58.10	149.90
190-199			5			714		1			59.46	424.54
200-209			13			1940		1			60.07	1165.36
210-240			15			2442		1			61.89	1511.35
200-209*			1			148		1			60.07	88.90
210-240*			2			342		1			61.89	211.66
210-240			1			172		2			60.74	104.47
180-189*			1			131		2			58.59	76.75
241-250			1			180		3			59.08	106.34
251-260			1			184		5			56.16	103.33

Totals			42			6511						3942.60
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Lot summary:

Total live weight --- 9080			
Total carcass weight 6511	Yield gain --	Total	Per live cwt
Actual yield ----- 71.71	Grade gain --	N/R	-\$ .78
Standard yield ---- 73.00	Sort gain ---	N/R	\$1.03
Yield difference --- -1.29	Lot value - \$3942.60		-\$ .33
			\$43.42

\*\*= trim loss

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* These carcasses had weight loss due to trimming.

## APPENDIX A

Firm 11

## Sample Grade and Yield Settlement Report

Live base price ----- \$43.25      Total head ----- 41      Base carcass price \$59.65  
 Average live base price    N/A      Total live weight 7485      (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base	Carc. weight	Base	Grade	Grade	Total	Total	
Live	Carcass				carc.		carcass		prem.			prem.
					price		value		cwt.	total	price	value
N/A	116-130	N/A	1	N/A	N/R	130	N/R	1	N/R	N/R	51.25	66.63
	131-138	*	3	**		402		1			57.45	230.95
	139-145		1			143		1			60.25	86.16
	116-130		6			745		2			51.25	381.81
	131-138		10			1347		2			56.45	760.38
	139-145		4			566		2			59.25	335.36
	146-152		3			440		2			60.65	266.86
	153-160		1			156		2			60.65	94.61
	116-130		4			491		3			47.05	231.02
	131-138		4			539		3			55.45	298.88
	139-145		1			144		3			58.25	83.88
	146-152		2			298		3			59.65	177.76
	153-160		1			153		3			59.65	91.26

Totals		41		5554		3105.56
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Lot summary:

Total live weight ---	7485	Total	Per live cwt
Total carcass weight	5554	Yield gain --	N/A
Actual yield -----	74.20	Grade gain --	N/R
Standard yield ----	N/A	Sort gain ---	N/A
Yield difference ---	N/A	Lot value -	\$3105.56    \$41.49

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.

\* Weight docks on a carcass basis.

\*\* Standard yield only used to establish base carcass price for preferred range.

## APPENDIX A

Firm 12

## Sample Grade and Yield Settlement Report

Live base price ----- N/R      Total head ----- 33      Base carcass price      N/R  
 Average live base price      N/A      Total live weight 6675      (Preferred weight range)

Weight range		Live price	No. head	Std. yield	Base carc. price	Carc. weight	Base carcass value	Grade	Grade prem. cwt.	Grade prem. total	Total carc. price	Total value
Live	Carcass											
171-180	N/R	N/R	1	N/R	54.58	128	69.86	1	0	0	N/R	69.86
181-190			1		55.59	131	72.82	1	0	0		72.82
181-190			1		55.59	129	71.71	2	0	0		71.71
181-190			2		55.59	268	148.98	3	0	0		148.98
191-200			6		55.90	846	472.91	1	0	0		472.91
191-200			2		55.90	278	155.40	2	0	0		155.40
201-210			4		57.88	596	344.96	1	1.72	10.25		355.21
201-210			3		57.88	452	261.62	2	1.03	4.66		266.28
211-240			8		58.56	1283	751.32	1	1.72	22.07		773.39
211-240			2		58.56	325	190.32	2	1.03	3.35		193.67
241-250			1		57.82	182	105.23	1	1.72	3.13		108.36
251-260			1		57.14	185	105.71	1	1.72	3.18		108.89
271-280			1		54.05	207	111.88	2	.69	1.43		113.31

Totals			33			5010	2862.72			48.07		2910.79
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Lot summary:

Total live weight --- 6675		Total	Per live cwt
Total carcass weight 5010	Yield gain --	\$91.34	\$1.37
Actual yield ----- 75.06	Grade gain --	\$48.07	\$ .72
Standard yield ---- 72.66	Sort gain ---	N/A	N/A
Yield difference --- N/R	Lot value -	\$2910.79	\$43.6

N/R - Not reported on settlement sheet, but used in packer's program.

N/A - Not applicable; packer doesn't use or report this data.



Table of Weight Ranges, Standard Yields, and Discounts

[illegible]

# APPENDIX B--CONTINUED

## Table of Weight Ranges, Standard Yields, and Discounts

<u>PLANT H</u>		Firm does not relate carcass purchases to live weight.																
Live wt.	126-140	141-156	157-172	173-195	196-216	217-243												
Carc wt.	0	0	0	0	0	0												
Std yld.	2.50	0	0	.70	2.75	7.25												
Discount																		
<u>PLANT I</u>		180-189	190-199	200-209	210-219	220-229	230-239	240-249	250-259	260-269	270-279	280-289	290-299					
Live wt.	131-138	139-146	147-155	156-162	163-170	171-178	179-185	186-193	194-202	203-209	210-217	218-224						
Carc wt.	.730	.735	.740	.740	.740	.745	.745	.745	.745	.750	.750	.750	.750					
Std yld.	6.00	3.00	1.00	0	0	0	.25	.50	1.00	1.50	2.50	3.50						
Discount																		
<u>PLANT J</u>		180-189	190-199	200-209	210-219	220-229	230-239	240-249	250-259	260-269	270-279	280-289	290-299					
Live wt.	129-136	137-144	145-152	153-160	161-168	169-175	176-182	183-190	191-198	199-206	207-214	215-222						
Carc wt.	.719	.722	.725	.730	.735	.735	.730	.730	.735	.736	.737	.738						
Std yld.	6.00	3.00	1.00	0	0	0	.25	.50	1.00	1.50	2.25	3.00						
Discount																		
<u>PLANT K</u>		181-190	191-200	201-210	211-220	221-230	231-240	241-250	251-260	261-270	271-280	281-290	291-300					
Live wt.	130-137	138-145	146-153	154-161	162-168	169-175	176-183	184-192	193-199	200-207	208-214	215-222						
Carc wt.	.726	.725	.735	.735	.735	.735	.735	.740	.740	.745	.745	.745						
Std yld.	7.50	2.50	.50	0	0	0	0	.25	.75	1.25	2.25	3.25						
Discount																		
<u>PLANT L</u>		180-189	190-199	200-209	210-220	221-230	231-240	241-250	251-260	261-270	271-280	281-290	291-300					
Live wt.	130-137	138-143	144-151	152-159	160-167	168-175	176-183	184-191	192-199	200-207	208-216	217-224						
Carc wt.	.7225	.7225	.7225	.7225	.7250	.7275	.7310	.7340	.7370	.7400	.7430	.7470						
Std yld.	6.00	3.00	.50	0	0	0	.25	.75	1.25	1.75	2.25	2.75						
Discount																		
<u>PLANT M</u>		180-190	190-200	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280	280-290	290-300					
Live wt.	128-135	136-143	144-152	153-160	161-168	169-176	177-184	185-191	192-199	200-207	208-215	216-222						
Carc wt.	.709	.713	.717	.723	.723	.723	.727	.729	.730	.732	.733	.734						
Std yld.	2.50	1.50	.50	0	0	0	.25	.75	1.25	1.75	2.25	2.75						
Discount																		
<u>PLANT N</u>		180-190	190-200	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280	280-290	290-300					
Live wt.	127-134	135-142	143-150	151-158	160-167	169-176	177-184	185-191	192-199	200-207	208-215	216-222						
Carc wt.	.72	.72	.72	.72	.72	.72	.72	.72	.72	.72	.72	.72						
Std yld.	3.00	1.25	.25	0	0	0	.50	1.00	1.25	1.75	2.25	2.50						
Discount																		

## Table of Weight Ranges, Standard Yields, and Discounts

**Note:** Other weight ranges and corresponding standard yields and discounts exist; however, they are excluded from the table as few hogs are purchases at those weights.

Standard yields shown are used to convert live prices to base carcass prices; different standards may be used to establish carcass weight ranges.

\* Standard yields are less for this plant because carcasses are skinned before weighing.

APPENDIX C

Schedule of Adjustments for Grade

Approximate live-weight range	180-190	190-200	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280	280-290
<b>Firm 1:</b>											
Plants A and M											
Carcass-weight range	128-135	135-143	144-152	153-160	161-168	169-176	177-184	185-191	192-199	200-207	208-215
Grade premium											
Per carcass cwt:											
Level 1	-0-	-0-	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+1.50	+1.50
Level 2	-0-	-0-	+1.25	+1.25	+1.25	+1.25	+1.25	+1.25	+1.25	+1.00	+1.00
Level 3	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 4	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
Level 5	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
<b>Firm 2:</b>											
Plant R											
Carcass weight-range	133-140	141-146	147-155	156-163	164-171	172-179	180-187	188-196	197-204	205-212	213-220
Plants B and L**											
Carcass weight-range	130-137	138-143	144-151	152-159	160-167	168-175	176-183	184-191	192-199	200-207	208-215
Grade premium per head:											
Level 1	-0-	-0-	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.50	+3.00
Level 2	-0-	+3.35	+3.35	+3.70	+3.70	+3.85	+4.05	+4.05	+4.20	+5.00	+6.25
Level 3	-0-	+3.00	+3.15	+3.35	+3.35	+3.50	+3.70	+3.70	+3.85	+4.60	+5.75
Level 4	-0-	+2.65	+2.80	+3.00	+3.00	+3.15	+3.35	+3.25	+3.40	+4.20	+5.25
Level 5	-0-	+2.30	+2.45	+2.65	+2.65	+2.80	+3.00	+3.00	+3.15	+3.80	+4.75
Level 6	-0-	+1.95	+2.10	+2.30	+2.30	+2.45	+2.65	+2.65	+2.80	+3.40	+4.25
Level 7	-0-	+1.60	+1.75	+1.95	+1.95	+2.10	+2.30	+2.30	+2.45	+3.00	+3.75
Level 8	-0-	+1.25	+1.40	+1.60	+1.60	+1.75	+1.95	+1.95	+2.10	+2.60	+3.25
Level 9	-0-	+ .90	+1.05	+1.25	+1.25	+1.40	+1.60	+1.60	+1.75	+2.20	+2.75
Level 10	-0-	+ .55	+ .75	+ .90	+ .90	+1.05	+1.25	+1.25	+1.40	+1.80	+2.25
Level 11	-0-	+ .20	+ .35	+ .55	+ .55	+ .70	+ .90	+ .90	+1.05	+1.40	+1.75
Level 12	- .20	- .20	-0-	+ .20	+ .20	+ .35	+ .55	+ .55	+ .70	+1.00	+1.25
Level 13	- .55	- .55	- .35	- .20	- .20	-0-	+ .20	+ .20	+ .35	+ .60	+ .75
Level 14	- .90	- .90	- .70	- .55	- .55	- .35	- .20	- .20	-0-	+ .20	+ .25
Level 15	-1.25	-1.25	-1.05	- .90	- .90	- .70	- .55	- .55	- .35	- .20	- .25
Level 16	-1.60	-1.60	-1.40	-1.25	-1.25	-1.05	- .90	- .90	- .70	- .60	- .75
Level 17	-1.95	-1.95	-1.75	-1.60	-1.60	-1.40	-1.25	-1.25	-1.05	-1.00	-1.25
Level 18	-2.30	-2.30	-2.10	-1.95	-1.95	-1.75	-1.60	-1.60	-1.40	-1.40	-1.75
Level 19	-2.65	-2.65	-2.45	-2.30	-2.30	-2.10	-1.95	-1.95	-1.75	-1.80	-2.25
Level 20	-3.00	-3.00	-2.85	-2.65	-2.65	-2.45	-2.30	-2.30	-2.10	-2.20	-2.75
Level 21	-3.35	-3.35	-3.15	-3.00	-3.00	-2.80	-2.65	-2.65	-2.45	-2.60	-3.25
Level 22	-3.70	-3.70	-3.35	-3.35	-3.35	-3.15	-3.00	-3.00	-2.80	-3.00	-3.75



APPENDIX C--CONTINUED

Schedule of Adjustments for Grade

Approximate live-weight range	180-190	190-200	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280	280-290
<b>Firm 3:</b>											
Plants C and G											
Carcass-weight range	130-137	138-144	145-152	153-159	160-167	168-175	176-183	184-191	192-199	200-207	208-215
Grade premium per carcass cwt:											
Level 1	+ .50	+1.00	+1.50	+2.00	+2.00	+1.75	+1.50	+1.25	+1.00	+ .75	+ .50
Level 2	-0-	+ .50	+1.00	+1.50	+1.50	+1.25	+1.00	+ .75	+ .50	+ .25	-0-
Level 3	-0-	-0-	+ .50	+1.00	+1.00	+ .75	+ .50	+ .25	-0-	-0-	-0-
Level 4	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 5	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Level 6	-1.50	-1.50	-1.50	-1.50	-1.50	-1.50	-1.50	-1.50	-1.50	-1.50	-1.50
Level 7	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
<b>Firm 4:</b>											
Plants D, E and K											
Carcass-weight range	130-137	138-145	146-153	154-161	162-168	169-175	176-183	184-192	193-199	200-207	208-214
Grade premium per carcass cwt:											
Level 1	-0-	-0-	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00
Level 2	-0-	-0-	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00
Level 3	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 4	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 5	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
Level 6	-4.00	-4.00	-4.00	-4.00	-4.00	-4.00	-4.00	-4.00	-4.00	-4.00	-4.00
Level 7	-7.50	-7.50	-7.50	-7.50	-7.50	-7.50	-7.50	-7.50	-7.50	-7.50	-7.50
Level 8	-.75	-.75	-.75	-.75	-.75	-.75	-.75	-.75	-.75	-.75	-.75
<b>Firm 5:</b>											
Plant F											
Carcass-weight range	113-119	120-126	127-132	133-139	140-145	146-151	152-158	159-165	166-172	173-180	181-187
Grade premium per carcass cwt:											
Level 1	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00
Level 2	+1.15	+1.15	+1.15	+1.15	+1.15	+1.15	+1.15	+1.15	+1.15	+1.15	+1.15
Level 3	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 4	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
Level 5	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
Level 6	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
<b>Plant N</b>											
Carcass-weight range	127-134	135-142	143-150	151-158	159-166	167-174	175-182	183-190	191-198	199-206	207-214
Grade premium per carcass cwt:											
Level 1	+1.75	+1.75	+1.75	+1.75	+1.75	+1.75	+1.75	+1.75	+1.75	+1.75	+1.75
Level 2	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00
Level 3	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 4	-1.75	-1.75	-1.75	-1.75	-1.75	-1.75	-1.75	-1.75	-1.75	-1.75	-1.75
Level 5	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00
Level 6	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00	-3.00

APPENDIX C--CONTINUED

Schedule of Adjustments for Grade

<b>Firm 6:</b> Plant H No grade program												
Approximate live-weight range												
	180-190	190-200	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280	280-290	
<b>Firm 7:</b> Plant I Carcass-weight range Grade premium per carcass cwt:												
Level 1	131-138	139-146	147-155	156-162	163-170	171-178	179-185	186-193	194-202	203-209	210-217	
Level 2	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00
Level 3	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50
Level 4	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 5	- .50	- .50	- .50	- .50	- .50	- .50	- .50	- .50	- .50	- .50	- .50	- .50
Level 6	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00	-7.00
Level 7	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00	-15.00
<b>Firm 8:</b> Plants J and P Carcass-weight range Grade premium per carcass cwt:												
Level 1	129-136	137-144	145-152	153-160	161-168	169-175	176-182	183-190	191-198	199-206	207-214	
Level 2	-0-	+1.00	+1.00	+1.50	+1.50	+1.50	+2.50	+2.50	+2.50	+2.50	+2.50	+2.50
Level 3	-0-	+ .50	+ .50	+ .75	+ .75	+ .75	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00
Level 4	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 5	- .50	- .50	- .50	- .75	- .75	- .75	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Level 6	-1.00	-1.00	-1.00	-1.50	-1.50	-1.50	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
Level 7	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
<b>Firm 9:</b> Plant O Carcass-weight range Grade premium per carcass cwt:												
Level 1	129-135	136-144	145-152	153-160	161-168	169-176	177-184	185-192	193-200	201-208	209-215	
Level 2	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00
Level 3	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75	+ .75
Level 4	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25	+ .25
Level 5	- .25	- .25	- .25	- .25	- .25	- .25	- .25	- .25	- .25	- .25	- .25	- .25
Level 6	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20	-1.20
Level 7	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20	-2.20
Level 8	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00	-5.00
<b>Firm 10:</b> Plant Q Carcass-weight range Grade premium per carcass cwt:												
Level 1	130-137	138-145	146-152	153-160	161-168	169-175	176-183	184-191	192-199	200-207	208-215	
Level 2	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00
Level 3	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50	+ .50
Level 4	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 5	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Level 6	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
Level 7	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50	-3.50

APPENDIX C--CONTINUED

Schedule of Adjustments for Grade

Approximate Live Wt. Range	180-190	190-200	200-210	210-220	220-230	230-240	240-250	250-260	260-270	270-280	280-290
<b>Firm 11:</b>											
Plant S											
Carcass-weight range											
Grade premium per carcass cwt:											
Level 1	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	+2.00	-0-	-0-	-0-	-0-
Level 2	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	+1.00	-0-	-0-	-0-	-0-
Level 3	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 4	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Level 5	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00	-2.00
Levels 6, 7, and 8	Priced Individually, based on trim, salvage, condition, etc.										

<b>Firm 12:</b>											
Plant T											
Carcass-weight range											
Grade premium per carcass cwt:											
Level 1	-0-	-0-	+1.72	+1.72	+1.72	+1.72	+1.72	+1.72	+1.72	+1.39	+1.39
Level 2	-0-	-0-	+1.03	+1.03	+1.03	+1.03	+1.03	+1.03	+1.03	+ .69	+ .69
Level 3	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 4	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-	-0-
Level 5	- .69	- .69	- .69	- .69	- .69	- .69	- .69	- .69	- .69	- .69	- .69
Level 6	-1.39	-1.39	-1.39	-1.39	-1.39	-1.39	-1.39	-1.39	-1.39	-1.39	-1.39
Level 7	Priced Individually, based on condition.										

\*\*\* Note: The 22 grade levels of firm 2 are condensed to 5 grades for their own statistical purposes. The 5 grades are used in Chart 12.

# APPENDIX D

## Grade and Yield: Distribution of Grade Premiums and Discount by Plant

Weight Range 210-240

	+1.50 and Up	+1.00 to 1.49	+ .50 to .99	+ .25 to .49	Base or -0-	-.50 to .99	-1.00 to 1.99	-2.00 to 2.99	-3.00 or More
Plant A	21.9	54.7	-	-	23.4	-	-	-	-
* B	10.2	24.0	37.0	-	23.6	1.275	1.275	1.275	1.275
C	55.4	40.4	-	-	2.1	-	0.1	0.9	1.2
D	48.9	38.6	-	-	11.0	-	-	-	1.0
E	38.1	42.9	-	-	11.5	-	-	-	7.0
F	45.3	39.7	-	-	12.5	-	-	2.4	0.2
G	76.1	22.0	-	-	0.4	-	0.5	-	0.9
H	-	-	-	-	-	-	-	-	-
I	-	81.1	15.1	-	2.3	1.0	-	-	0.3
J	6.4	-	49.0	-	42.5	2.1	-	-	-
K	44.6	40.8	-	-	10.3	-	-	-	0.2
* L	14.4	39.6	33.1	-	9.0	0.975	0.975	0.975	0.975
M	9.9	69.7	-	-	20.3	-	-	-	-
N	41.9	33.0	-	-	23.7	-	1.3	-	-
O	-	47.0	23.7	17.3	-	-	2.6	-	-
P	12.1	-	52.9	-	32.8	9.5	-	-	-
Q	67.5	22.8	-	-	8.2	2.3	-	-	-
* R	28.9	38.4	24.0	-	6.6	-	0.7	-	0.4
S	39.5	51.8	-	-	7.1	.475	.475	.475	.475
T	85.1	14.1	-	-	0.4	-	-	-	-
TOTAL	38.6	38.1	6.6	0.1	14.6	0.3	0.3	0.5	0.6

NOTE: 98.0 percent of the hogs purchased on the basis of grade and yield received premiums or no discount.  
83.4 percent of the hogs purchased on the basis of grade and yield received premiums.  
1.7 percent of the hogs purchased on the basis of grade and yield received discounts.

Some plants don't total 100 percent due to special discounts applied for trims, and similar factors.

\*Some plants used ranges such as -1.00 to -3.00 for premium/discount within one grade. These were placed as closely as possible to ranges in this table.



APPENDIX D--CONTINUED

Live Purchases: Distribution of Grade Premiums and Discount by Plant

Weight Range 210-240

	+1.50 and Up	+1.00 to 1.49	+0.50 to .99	+0.25 to .49	Base or -0-	-0.50 to .99	-1.00 to 1.99	-2.00 to 2.99	-3.00 and more
Plant A	17.3	52.0	-	-	30.6	-	-	0.1	0.1
* B	10.3	29.9	35.1	-	19.6	1.25	1.25	1.25	1.25
C	-	-	-	-	-	-	-	-	-
D	38.7	45.1	-	-	14.9	-	-	-	1.1
E	30.4	45.6	-	-	13.5	-	-	-	10.0
F	-	-	-	-	-	-	-	-	-
G	-	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-	-
I	-	-	-	-	-	-	-	-	-
J	2.5	-	37.8	-	54.2	5.6	-	-	-
K	34.3	44.1	-	-	16.0	-	-	-	0.5
* L	8.8	22.4	37.9	-	21.9	2.225	2.225	2.225	2.225
M	6.1	68.9	-	-	24.7	-	-	-	-
N	-	-	-	-	-	-	-	-	-
O	-	37.7	22.9	20.2	-	14.2	4.9	-	-
P	7.6	-	44.5	-	44.6	3.4	-	-	-
Q	51.0	30.2	-	-	16.5	-	1.2	0.1	0.7
R	-	-	-	-	-	-	-	-	-
S	28.6	57.3	-	-	12.2	-	0.1	-	-
T	76.4	21.8	-	-	0.8	-	0.8	-	-
TOTAL	18.4	33.7	15.4	1.2	25.9	2.3	0.5	0.2	1.7

94.6 percent of the hogs purchased live received premiums or no discount.

68.7 percent of the hogs purchased live received premiums.

4.7 percent of the hogs purchased live received discounts.

\*Hogs purchased on a live basis do not actually receive a carcass grade adjustment. This chart shows the carcass grade adjustment they would have received had they been purchased on the basis of grade and yield.

### Grade and Yield Purchases - Weight 210-240 Lbs. Grade Premiums and Discounts

Percent

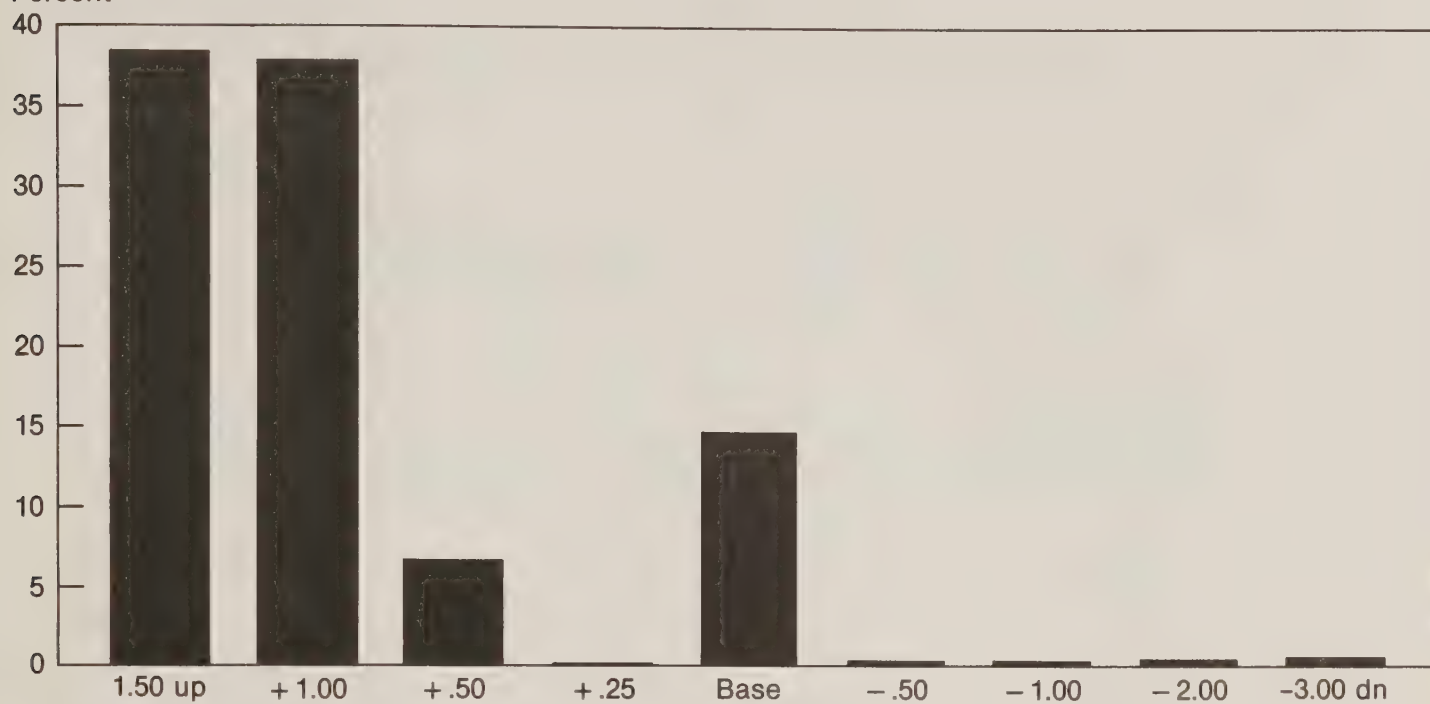
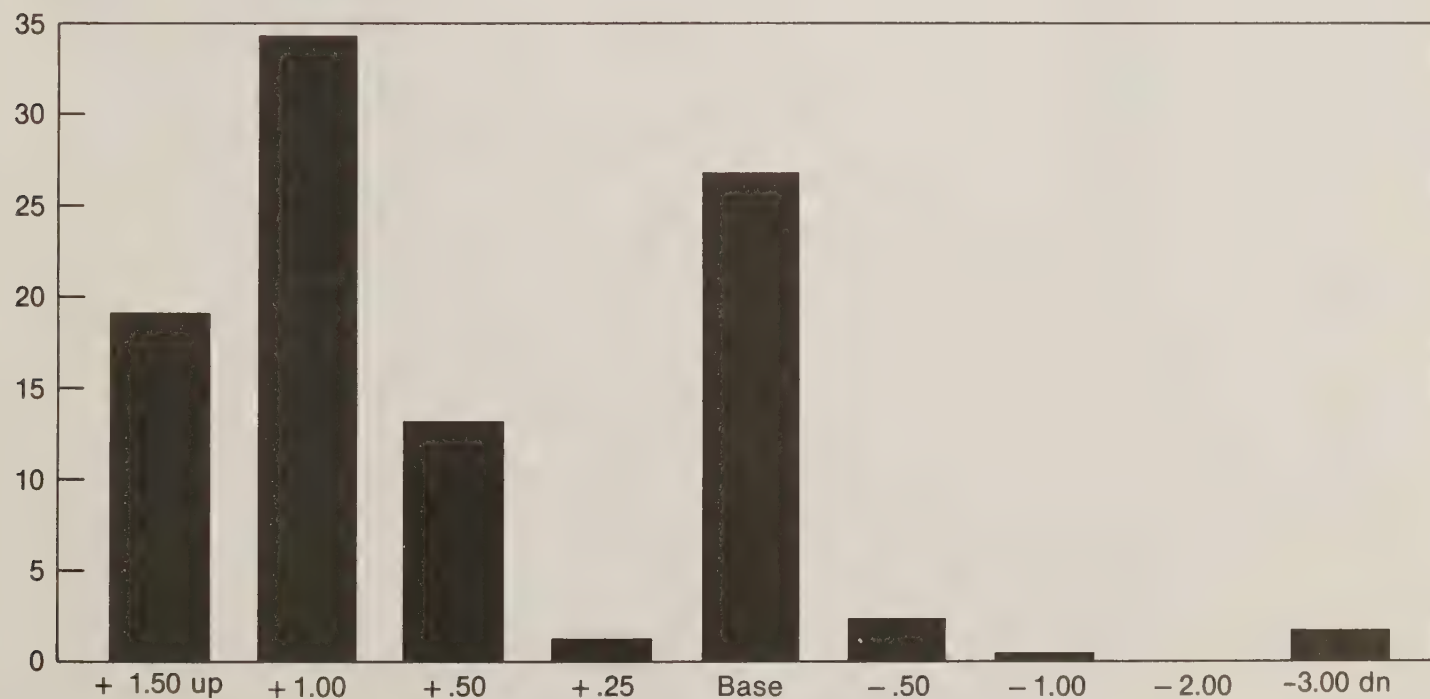


Figure 9

### Live Purchases - Weight 210-240 Lbs. Grade Premiums and Discounts

Percent



# APPENDIX E

## Carcass Data for Actual Comparison of Sample Lots

### Lot 1

Head ----- 30	Purchase date -- 2-24-82
Live weight ---- 6035	Carcass weight ---- 4541
Average weight -- 201	Actual yield ---- 75.24%

Approximate live-weight range (Using 73% yield)	Carcass weight	Backfat thickness (Inches)
181-190	134	0.8
181-190	134	1.0
181-190	136	0.8
191-200	138	1.1
191-200	139	1.0
191-200	141	0.8
191-200	141	1.1
191-200	142	1.0
191-200	143	1.2
191-200	145	1.1
201-210	146	0.7
201-210	148	1.3
201-210	150	0.9
201-210	150	1.1
201-210	153	1.1
201-210	153	1.2
201-210	153	1.5
211-220	154	1.4
211-220	157	1.1
211-220	158	1.2
211-220	158	1.4
211-220	159	1.0
211-220	160	0.9
211-220	160	1.1
211-220	161	1.0
221-230	162	1.1
221-230	163	1.0
221-230	164	1.3
231-240	169	1.0
231-240	170	1.0

# APPENDIX E--CONTINUED

## Carcass Data for Actual Comparison of Sample Lots

Lot 2

Head -----	23	Purchase date ---	3-2-82
Live weight ----	5170	Carcass weight ----	3825
Average weight --	225	Actual yield ----	73.98%

Approximate live-weight range (Using 73% yield)	Carcass weight	Backfat thickness (Inches)
201-210	153	1.2
211-220	156	1.1
211-220	157	1.3
211-220	157	1.4
211-220	158	1.2
211-220	158	1.5
211-220	159	1.1
211-220	161	1.2
221-230	162	1.0
221-230	162	1.1
221-230	163	1.2
221-230	163	1.4
221-230	165	0.9
221-230	165	1.4
221-230	167	1.0
221-230	167	1.4
221-230	168	0.9
231-240	169	1.4
231-240	173	1.2
241-250	181	1.3
241-250	183	1.2
251-260	187	1.9
251-260	191	1.0



# APPENDIX E--CONTINUED

## Carcass Data for Actual Comparison of Sample Lots

Lot 3

Head ----- 16	Purchase date --- 3-3-82
Live weight ---- 3665	Carcass weight ---- 2656
Average weight -- 229	Actual yield ---- 72.47%

Approximate live-weight range (Using 73% yield)	Carcass weight	Backfat thickness (Inches)
181-190	134	1.2
181-190	134	1.3
191-200	140	1.3
191-200	143	1.2
191-200	145	1.0
211-220	160	0.9
211-220	160	1.2
221-230	164	1.0
231-240	175	1.2
241-250	176	1.2
241-250	177	1.2
241-250	179	1.3
241-250	180	1.3
241-250	180	1.3
261-270	197	1.3
281-290	212	1.1

# APPENDIX E--CONTINUED

## Carcass Data for Actual Comparison of Sample Lots

Lot 4

Head ----- 25	Purchase date --- 3-3-82
Live weight ---- 6230	Carcass weight ---- 4672
Average weight -- 249	Actual yield ---- 74.99%

Approximate live-weight range (Using 73% yield)	Carcass weight	Backfat thickness (Inches)
201-210	146	1.4
201-210	148	1.0
231-240	172	1.3
241-250	178	1.4
241-250	179	1.4
241-250	180	1.5
241-250	183	1.3
241-250	183	1.6
251-260	185	1.4
251-260	186	1.5
251-260	186	1.6
251-260	187	1.5
251-260	188	1.4
251-260	188	1.6
251-260	190	1.3
251-260	190	1.5
251-260	192	1.8
261-270	195	1.6
261-270	197	1.3
261-270	198	1.4
271-280	200	1.4
271-280	201	1.5
271-280	204	1.5
271-280	207	1.5
281-290	209	1.6

## GLOSSARY OF TERMS

ACTUAL YIELD - The actual dressing percentage of the lot.

AVERAGE BASE LIVE PRICE - The weighted average of the base live prices for all weight ranges in the lot.

BASE CARCASS PRICE - The carcass price per hundredweight for a standard quality carcass. Calculated by dividing the grade and yield live price by the standard yield for the corresponding weight range. Also called carcass price, No. 3 schedule price.

BASE CARCASS VALUE - The dollar value of a standard or base quality carcass, or a carcass without any grade premium or discount. Calculated by multiplying the carcass weight times the base carcass price. Also called carcass value, No. 3 schedule price.

BASE LIVE PRICE - The price per hundredweight quoted for live hogs in the preferred weight range, with base quality carcasses. Also called base market price, base market, base, market, grade and yield base price.

GRADE - The quality criteria for carcasses established by each packer. One grade is normally designated as the base or standard grade. This grade has no corresponding premium or discount, but all other grades do.

GRADE GAIN OR LOSS - The sum of the grade premiums and discounts. Expressed as a total dollar amount and/or a hundredweight amount. Also called grade P and L, grade factor, grade margin, lean add/fat deduct.

GRADE PREMIUM OR DISCOUNT - The amount added to or subtracted from the base carcass price, determined by carcass grade. Also called grade factor, grade margin, lean add/fat deduct.

PREFERRED WEIGHT RANGE - The weight range most desired by a packer, which is usually communicated as a base weight range. Normally a 30-pound range somewhere between 210 and 250 pounds. Also called base weight range, base live-weight range, top weight range.

SORT FACTOR - The relative loss that results from hogs in the lot being outside the preferred weight range. Not actually a factor in determining the amount to be paid for the lot. Also called sort gain/loss, sort margin.

STANDARD YIELD - The dressing percentage assigned by each packer. Standard yields normally are different for each weight range. Also called standard dressing percentage.

STANDARD YIELD--LOT AVERAGE - The weighted average of the standard yields for each weight range in the lot. Also called plant standard yield.

TOTAL CARCASS PRICE - The total amount to be paid for the carcass, expressed as a total or per hundredweight amount. Also called carcass value, meat price, grade and yield value, net carcass price.

YIELD DIFFERENCE - The difference between percentage of the actual yield of the lot, and the lot average standard yield.

YIELD GAIN OR LOSS - A calculated amount for each lot based on the yield difference. It represents the theoretical gain or loss resulting from hogs yielding higher or lower than standard. It is not actually a factor in determining the amount to be paid for the lot. Also called yield P and L, yield factor, yield margin.







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